

New data on the distribution and taxonomy of some Palaearctic species of Sphecidae (Hymenoptera: Apoidea)

Новые данные по распространению и систематике некоторых палеарктических видов семейства Sphecidae (Hymenoptera: Apoidea)

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Key words: digger wasps, Sphecidae, Hymenoptera, distribution, taxonomy, Palaearctic.

Ключевые слова: роющие осы, Sphecidae, перепончатокрылые, распространение, систематика, Палеарктика.

Abstract. New data on the distribution of 26 species of sphecid digger wasps in Palaearctic are given. *Isodontia paludosa* (Rossi, 1790), *Prionyx niveatus* (Dufour, 1854), *Podalonia ebenina* (Spinola, 1839), *Ammophila adelpha* Kohl, 1901, and *A. tekkensis* Gussakovskij, 1930 are newly recorded from Russia, as are *Parapsammophila turanica* F. Morawitz, for Mongolia, *Sceliphron curvatum* (F. Smith, 1870) and *Podalonia fera* (Lepelletier de Saint Fargeau, 1845) for Georgia; the distribution patterns of other species have also been enlarged. The new synonymy of *Podalonia flavida* (Kohl, 1901) = *Podalonia rothi* (de Beaumont, 1951), **syn.n.** is proposed.

Резюме. Приводятся новые данные по распространению 26 видов роющих ос семейства Sphecidae в Палеарктике. *Isodontia paludosa* (Rossi, 1790), *Prionyx niveatus* (Dufour, 1854), *Podalonia ebenina* (Spinola, 1839), *Ammophila adelpha* Kohl, 1901, *A. tekkensis* Gussakovskij, 1930 указываются впервые для России, *Parapsammophila turanica* F. Morawitz, 1890 — для Монголии, *Sceliphron curvatum* (F. Smith, 1870) и *Podalonia fera* (Lepelletier de Saint Fargeau, 1845) — для Грузии; распространение остальных видов расширено. Предложена новая синонимия для *Podalonia flavida* (Kohl, 1901) = *Podalonia rothi* (de Beaumont, 1951), **syn.n.**

Introduction

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 distributed worldwide, mainly in arid, semiarid and tropical regions. Number of taxa: Word — 19 genera, 772 species; Palaearctic — 13/256; Russia — 10/65.

Materials and methods

This paper is based on the material from the Zoological Institute of Russian Academy of Sciences, St. Petersburg [ZISP], Institute of Systematics and Ecology of Animals, Siberian Branch of Russian Academy of Sciences, Novosibirsk [ISEN], Institute of Plant and Animal Ecology, Ural Branch of Russian Academy of Sciences, Yekaterinburg [IPAE] and from the personal collection of M.V. Mokrousov, Nizhny Novgorod [CMM]. The additional abbreviations are used in the text: MCZL — Musée Cantonal de Zoologie, Lausanne, Switzerland; NHMW — Naturhistorisches Museum, Wien, Austria; TMB — Természettudományi Múzeum, Budapest, Hungary. Next collectors are abbreviated: SB — S. Belokobylskij, VL — V. Loktionov, M.M. — M. Mokrousov, MP — M. Proshchalykin. The general distribution is given by Pulawski, 2016. The new records are asterisked (*).

List of species

Sceliphron curvatum (F. Smith, 1870)

Material. Georgia. 1♀ — Borjomi, 23.VI.2016, MM (CMM).

Distribution. Russia (Astrakhan Prov., Krasnodar Terr., Crimea). — France, the Netherlands, Belgium, Switzerland, Germany, Austria, Poland, Czech Republic, Slovakia, Hungary, Slovenia, Spain, Italy, Croatia, Serbia, Montenegro, Romania, Bulgaria, Greece, Ukraine, *Georgia, Abkhazia, Turkey, Iraq, Pakistan, Afghanistan, Uzbekistan, Tajikistan, Kyrgyzstan, India, Nepal, South America (Argentina, Chile), French Polynesia.

Sceliphron deforme (F. Smith, 1856)

Material. Russia. *Chuvashia*: Altyshevo-Lulsky, 11.VII.2014, P. Sten'kin (CMM); *North Ossetia*: 1♀ — Mozdok, 28.VI.2014, K. Shtark (CMM); *Orenburg Prov.*: 1♀ — Orsk, 15.VIII.2012, K. Fadeyev (IPAE); *Novosibirsk Prov.*: 7♀♀ — Novosibirsk, Akademgorodok, 18.VII.2015, Yu. Danilov (ISEN).

Distribution. Russia (Ivanovo Prov., Nizhny Novgorod Prov., Mordovia, *Chuvashia, Penza Prov., Ulyanovsk Prov., Voronezh Prov., Krasnodar Terr., *North Ossetia, *Orenburg Prov., *Novosibirsk Prov., Krasnoyarsk Terr., Amur Prov., Khabarovsk Terr., Primorsky Terr.). — Montenegro, Greece, Tajikistan, Kazakhstan, Mongolia, China (Tibet, Gansu, Hebei, Beijing, Shandong, Heilongjiang, Sichuan, Jiangsu, Zhejiang, Hong Kong), Korea, Japan (Hokkaido, Honshu, Shikoku, Kyushu, Ryukyu), Taiwan, India, Thailand, Laos, Vietnam, Philippines.

Sphex atopilosus Kohl, 1885

Material. Russia. *Saratov Prov.*: 1♂ — Pugachyov, 1915, V. Bostanzhoglo (ZISP); *Volgograd Prov.*: 1♀, 2♂♂ — Volgograd, Krasnoarmeysky District [former Sarepta], 1894 (ZISP); *Kalmykia*: 2♂♂ — near Elista, 26.VI.1993, V. Krivohatskij (ZISP); 5♀♀, 4♂♂ — Chernozemelsky District, near Komsomolsky, 2.VI.2016, MM (CMM); *Krasnodar Terr.*: 2♂♂ — Krasnodar (ZISP); 1♀ — Bryukhovetsky District, Chepiginskaya, 16.VI.1923, Purgalov (ZISP); *Stavropol Terr.*: 3♀♀, 1♂ — Turkmeny District, Sharahalsun, 27.VI.1926, V. Belizin (ZISP); *Dagestan*: 2♂♂ — Tarumovsky District, near Artezian, Kuma river, 3.VI.2016, MM (CMM).

Distribution. Russia (Voronezh Prov., *Saratov Prov., Rostov Prov., *Volgograd Prov., *Kalmykia, *Krasnodar Terr., *Stavropol Terr., *Dagestan, Novosibirsk Prov.). — France, Czech Republic, Slovakia, Hungary, Portugal, Spain, Romania, Greece, Turkey, Turkmenistan, Tajikistan, Kazakhstan.

Sphex funerarius Gussakovskij, 1934

Material. Russia. *Volgograd Prov.*: 1♀ — near Kalach-na-Donu, 10.VII.2015, SB, VL, MM, MP (CMM); 1♀ — near Kamyshin, 27.VII.2015, SB, VL, MM, MP (CMM); *Kalmykia*: 1♀, 1♂ — Lagansky District, near Lagan, 24.VII.2015, SB, VL, MM, MP (CMM); 1♂ — Yashkulsky District, near Hulhuta, 30.V.2016, MM (CMM); *Dagestan*: 13♀♀, 11♂♂ — Tarumovsky District, near Artezian, Kuma river, 19.VII.2015, SB, VL, MM, MP (CMM).

Distribution. Russia (Ivanovo Prov., Nizhny Novgorod Prov., Ryazan Prov., Bryansk Prov., Belgorod Prov., Voronezh Prov., Kirov Prov., Chuvashia, Tatarstan, Ulyanovsk Prov., Samara Prov., Saratov Prov., Rostov Prov., *Volgograd Prov., *Kalmykia, Astrakhan Prov., Krasnodar Terr., *Dagestan, Crimea, Sverdlovsk Prov., Chelyabinsk Prov., Orenburg Prov., Kurgan Prov., Omsk Prov., Tomsk

Prov., Novosibirsk Prov., Altai Terr., Altai Republic, Tuva, Krasnoyarsk Terr., Irkutsk Prov., Buryatia, Zabaykalsky Terr.). — Sweden, Lithuania, France, Netherlands, Belgium, Luxembourg, Switzerland, Germany, Austria, Poland, Czech Republic, Slovakia, Hungary, Slovenia, Portugal, Spain, Italy, Malta, Croatia, Macedonia, Albania, Romania, Bulgaria, Greece, Cyprus, Morocco, Algeria, Tunisia, Libya, Egypt, Belarus, Ukraine, Abkhazia, Turkey, Syria, Israel, Palestine, Iran, Afghanistan, Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia, China (Gansu, Neimenggu, Beijing, Liaoning).

Sphex leuconotus Brullé, 1833

Material. Russia. *Volgograd Prov.*: 1♂ — Kalachyovsky District, 18 km NNE Kalach-na-Donu, 11.VII.2015, SB, VL, MM, MP (CMM); *Kalmykia*: 1♀ — Yashkulsky District, near Hulhuta, 15.VII.2015, SB, VL, MM, MP (CMM); *Astrakhan Prov.*: 1♂ — Enotayevsky District, near Volzhskij, 09.VIII.2016, MM (CMM); 4♂♂ — Krasnoyarsky District, near Dosang, 06.VI.2016, MM, (CMM); *Krasnodar Terr.*: 1♀ — Anapa, 24.VIII.1924, K.V. Arnoldi (ZISP); *Dagestan*: 1♀ — Tarumovsky District, near Kochubey, 22.VII.2015, SB, VL, MM, MP (CMM); 2♀♀, 10♂♂ — near Kizlyar, 23.VII.2015, SB, VL, MM, MP (CMM); 1♀, 1♂ — Tarumovsky District, near Artezian, Kuma river, 19.VII.2015, SB, VL, MM, MP (CMM).

Distribution. Russia (*Volgograd Prov., *Kalmykia, *Astrakhan Prov., *Krasnodar Terr., *Dagestan, Crimea). — France, Portugal, Spain, Italy, Romania, Bulgaria, Greece, Cyprus, Morocco, Algeria, Libya, Ukraine, Azerbaijan, Turkey, Syria, Jordan, Israel, Iraq, Iran, Afghanistan, Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan.

Isodontia paludosa (Rossi, 1790)

Material. Russia. *Stavropol Terr.*: 1♂ — near Kislovodsk, 15.VII.1947, Kurlakov (ZISP).

Distribution. *Russia (Stavropol Terr.). — France, Slovenia, Spain, Italy, Croatia, Bulgaria, Greece, Morocco, Turkey, Jordan, Iran, Turkmenistan.

Palmodes melanarius (Mocsáry, 1883)

Material. Russia. *Saratov Prov.*: 1♀ — Nizhnaja Bannovka, 27–30.VI.2003, V. Krivohatskij (ZISP); 1♂ — Nizhnaja Bannovka, 5–12.VII.2005, V. Krivohatskij, O. Ovchinnikova (ZISP); *Volgograd Prov.*: 1♀ — Lake Elton, 20.VI.2003, V. Krivohatskij, O. Ovchinnikova (ZISP); 1♂ — Volgograd, Krasnoarmeysky Rayon (Old Sarepta), 26.VI.1907, M. Koch (ZISP); *Kalmykia*: 2♀♀, 1♂ — Chyornyje Zemli Nature Reserve, 3–9.VIII.2006, G. Anufriev, A. Galimichev (CMM); 1♀ — Lagansky District, near Lagan, 24.VII.2015, SB, VL, MM, MP (CMM); 1♀, 1♂ — Oktyabrsky District, near Tsagan-Nur, 13.VII.2015, SB, VL, MM, MP (CMM); 1♂ — Yashkulsky District, near Hulhuta, 15.VII.2015, SB, VL, MM, MP (CMM); 1♀, 2♂♂ — Yashkulsky District, near Yashkul, 16.VII.2015, SB, VL, MM, MP (CMM); *Astrakhan Prov.*: 1♂ — Enotayevsky District, near Zamjany, 27.VII.2015, SB, VL, MM, MP (CMM); 1♀, 2♂♂ — Enotayevsky District, near Volzhskij, 07.VIII.2016, MM (CMM); *Chechnya*: 1♀ — Shelkovskoy District, Shelkovskaya, 18.VII.1927, A. Kirichenko (ZISP); *Dagestan*: 2♀♀ — near Kizlyar, 23.VII.2015, SB, VL, MM, MP (CMM); 5♂♂ — Tarumovsky District, Alexandro-Nevskoye, 26.VI.1927, Olsufiev (ZISP); 1♂ — Tarumovsky District, near Kochubej, 21.VII.2015, SB, VL, MM, MP (CMM); 1♀ — Tarumovsky District, near Artezian, 20.VII.2015, SB, VL, MM, MP (CMM).

Distribution. Russia (*Saratov Prov., Rostov Prov., *Volgograd Prov., *Kalmykia, *Astrakhan Prov., *Chechnya, *Dagestan, Crimea). — Portugal, Spain, Greece, Morocco, Libya, Georgia, Turkey, Syria, Iraq, Iran, Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan.

Palmodes occitanicus (Lepeletier de Saint Fargeau et Audinet-Serville, 1828)

Material. Russia. *Yaroslavl Prov.*: 1♂ — Yaroslavl, 8.VI.1886, A. Semenov (ZISP); 1♂ — Yaroslavl, 23.VI.1899, (ZISP); *Volgograd Prov.*: 2♂♂ — Kalachyovskiy District, Kalach-na-Donu, 13.VIII.2003, Zryanin (CMM); 1♀ — ibid, 14.VIII.2012, MM (CMM); 1♀ — ibid, 10.VII.2015, SB, VL, MM, MP (CMM); 1♂ — Kamyshin, 10.VII.2015, SB, VL, MM, MP (CMM); *Kalmykia*: 5♀♀ — Chernozemelsky District, near Komsomolsky, 4.VI.2016, MM (CMM); 2♀, 6♂♂ — Lagansky District, near Lagan, 4.VI.2016, MM (CMM); 1♀ — Yashkulsky District, near Hulhuta, 29.V.2016, MM (CMM); *Dagestan*: 1♀ — Tarumovskiy District, near Artezian, Kuma river, 03.VI.2016, MM (CMM); *Amur Prov.*: 1♀ — Arkharinsky District, Novopokrovka, 1908, A. Yakovlev (ZISP).

Distribution. Russia (*Yaroslavl Prov., Saratov Prov., Rostov Prov., *Volgograd Prov., *Kalmykia, Astrakhan Prov., Krasnodar Terr., *Dagestan, Crimea, Orenburg Prov., Tomsk Prov., Altai Terr., Altai Republic, Khakassia, Tuva, Irkutsk Prov., Buryatia, Yakutia, Zabaykalsky Terr., *Amur Prov.). — France, Slovakia, Hungary, Slovenia, Portugal, Spain, Italy, Croatia, Montenegro, Macedonia, Albania, Romania, Bulgaria, Greece, Cyprus, Morocco, Algeria, Libya, Turkey, Syria, Jordan, Israel, Iran, Afghanistan, Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia, China (Xinjiang, Neimenggu, Shanxi, Beijing, Shandong, Liaoning, Sichuan, Jiangsu, Shanghai, Zhejiang), Korea.

Prionyx kirbii (Vander Linden, 1827)

Material. Russia. *Kalmykia*: 2♀♀ — Yashkulsky District, near Hulhuta, 15.VII.2015, SB, VL, MM, MP (CMM); 4♂♂ — Yashkulsky District, near Yashkul, 16.VII.2015, SB, VL, MM, MP (CMM); 1♀ — Lagansky District, near Lagan, 24.VII.2015, SB, VL, MM, MP (CMM); 1♀ — Oktyabrskiy District, near Tsagan-Nur, 13.VII.2015, SB, VL, MM, MP (CMM); 3♀♀, 1♂ — Chernozemelsky District, near Komsomolsky, 18.VII.2015, SB, VL, MM, MP (CMM); *Dagestan*: 2♀♀ — Tarumovskiy District, near Kochubej, 21.VII.2015, SB, VL, MM, MP (CMM); 2♀♀, 3♂♂ — Tarumovskiy District, near Artezian, Kuma river, 19.VII.2015, SB, VL, MM, MP (CMM).

Distribution. Russia (Belgorod Prov., Rostov Prov., Volgograd Prov., *Kalmykia, Astrakhan Prov., Krasnodar Terr., *Dagestan, Crimea, Altai Terr.). — France, Switzerland, Austria, Czech Republic, Slovakia, Hungary, Slovenia, Portugal, Spain, Italy, Malta, Croatia, Romania, Bulgaria, Greece, Morocco, Algeria, Tunisia, Libya, Egypt, Belarus, Ukraine, Abkhazia, Turkey, Syria, Jordan, Lebanon, Israel, Iran, Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia, China (Neimenggu, Hebei, Beijing, Liaoning, Jiangsu), Sub-Saharan Africa, Yemen, UAE.

Prionyx lividocinctus (A. Costa, 1861)

Material. Russia. *Kalmykia*: 1♀ — Yashkulsky District, near Hulhuta, 15.VII.2015, SB, VL, MM, MP (CMM); 2♀♀, 4♂♂ — Yashkulsky District, near Yashkul, 16.VII.2015, SB, VL, MM, MP (CMM); *Dagestan*: 5♀♀, 15♂♂ — Tarumovskiy District, near Kochubej, 22.VII.2015, SB, VL, MM, MP (CMM); 4♂♂ — near Kizlyar, 23.VII.2015, SB, VL, MM, MP (CMM); *Crimea*: 1♂ — near Feodosia, 20–30.VIII.2016, A. Barkalov (ISEN).

Distribution. Russia (*Kalmykia, Krasnodar Terr., *Dagestan, *Crimea). — France, Portugal, Spain, Italy, Bulgaria, Greece, Cyprus, Morocco, Tunisia, Libya, Egypt, Turkey, Lebanon, Iran, Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia, China (Neimenggu).

Prionyx niveatus (Dufour, 1854)

Material. Russia. *Volgograd Prov.*: 1♂ — Kalachyovskiy District, 18 km NNE Kalach-na-Donu, 11.VII.2015, SB, VL, MM, MP (CMM); *Astrakhan Prov.*: 2♀♀, 1♂ — Enotayevskiy District, near Zamjany, 22.VII.2015, SB, VL, MM, MP (CMM); 2♀♀ — Enotayevskiy District, near Volzhskij, 7, 9.VIII.2016, MM (CMM); 1♂ — Kharabalinsky District, near Lapas, 07.VI.2016, MM (CMM).

Distribution. *Russia (Volgograd Prov., Astrakhan Prov.). — Spain, Morocco, Algeria, Tunisia, Libya, Egypt, Turkey, Jordan, Israel, Kuwait, Iran, Afghanistan, Turkmenistan, Uzbekistan, Tajikistan, Kazakhstan, Mongolia, Sub-Saharan Africa, Yemen, Oman, UAE.

Prionyx nudatus (Kohl, 1885)

Material. Russia. *Kalmykia*: 1♀, 3♂♂ — Lagansky District, near Lagan, 24.VII.2015, SB, VL, MM, MP (CMM)

Distribution. Russia (Nizhny Novgorod Prov., Ryazan Prov., Mordovia, Belgorod Prov., Voronezh Prov., Chuvashia, Tatarstan, Rostov Prov., Volgograd Prov., *Kalmykia, Astrakhan Prov., Krasnodar Terr., Crimea, Novosibirsk Prov., Altai Terr., Tuva). — Spain, Croatia, Montenegro, Morocco, Egypt, Ukraine, Turkey, Iran, Afghanistan, Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan, China (Neimenggu).

Prionyx subfuscatus (Dahlbom, 1845)

Material. Russia. *Kalmykia*: 3♂♂ — Yashkulsky District, near Yashkul, 16.VII.2015, SB, VL, MM, MP (CMM); 1♂ — Yashkulsky District, near Hulhuta, 30.V.2016, MM (CMM); 2♀♀ — Oktyabrskiy District, near Tsagan-Nur, 13.VII.2015, SB, VL, MM, MP (CMM); 17♂♂ — Chernozemelsky District, near Komsomolsky, 18.VII.2015, SB, VL, MM, MP (CMM); *Dagestan*: 6♂♂ — Tarumovskiy District, near Artezian, Kuma river, 19.VII.2015, SB, VL, MM, MP (CMM).

Distribution. Russia (Belgorod Prov., Voronezh Prov., Ulyanovsk Prov., Saratov Prov., Rostov Prov., Volgograd Prov., *Kalmykia, Astrakhan Prov., Krasnodar Terr., *Dagestan, Crimea, Orenburg Prov., Altai Terr., Tuva, Irkutsk Prov., Buryatia, Primorsky Terr.). — France, Germany, Poland, Czech Republic, Slovakia, Hungary, Portugal, Spain, Italy, Malta, Croatia, Albania, Romania, Greece, Cyprus, Morocco, Algeria, Libya, Egypt, Ukraine, Abkhazia, Turkey, Israel, Iran, Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia, China (Gansu, Neimenggu, Hebei, Beijing, Shandong, Liaoning, Jiangsu, Zhejiang), Korea, Sub-Saharan Africa, Oman, Saudi Arabia, UAE, India.

Prionyx viduatus viduatus (Christ, 1791)

Material. Russia. *Kalmykia*: 1♀ — Oktyabrskiy District, near Tsagan-Nur, 13.VII.2015, SB, VL, MM, MP (CMM); 12♀♀, 7♂♂ — Chernozemelsky District, near Komsomolsky, 18.VII.2015, SB, VL, MM, MP (CMM).

Distribution. Russia (Belgorod Prov., Rostov Prov., *Kalmykia, Astrakhan Prov., Krasnodar Terr., Crimea, Omsk Prov.). — France, Portugal, Spain, Italy, Malta, Greece, Cyprus, Canary Islands, Morocco, Algeria, Tunisia, Libya, Egypt, Abkhazia, Turkey, Syria, Israel, Iran, Afghanistan, Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan, China (Liaoning, Hong Kong), Korea, Japan (Ryukyu), Taiwan, Sub-Saharan Africa, Yemen, Oman, Saudi Arabia, UAE, India, Thailand, Vietnam.

Parapsammophila turanica F. Morawitz, 1890

Material. Mongolia. *Govi-Altai Province*: 2♀♀ — Dzhungarian Gobi, Alag Nuur Lake, 9–10.VII.2010, Yakovlev, Guskova (CMM).

Distribution. Morocco, Algeria, Tunisia, Libya, Egypt, Jordan, Israel, Kuwait, Iran, Turkmenistan, Uzbekistan, Kazakhstan, *Mongolia, Oman, Saudi Arabia, UAE.

Eremochares dives (Brullé, 1833)

Material. Russia. *Kalmykia:* 1♀, 1♂ — Chernozemelsky District, near Komsomolsky, 18.VII.2015, SB, VL, MM, MP (CMM); *Dagestan:* 9♀♀, 9♂♂ — Tarumovsky District, near Kochubey, 22.VII.2015, SB, VL, MM, MP (CMM); 6♂♂ — Tarumovsky District, near Artezian, Kuma river, 19.VII.2015, SB, VL, MM, MP (CMM).

Distribution. Russia (*Kalmykia, Astrakhan Prov., Krasnodar Terr., *Dagestan, Crimea). — Greece, Morocco, Algeria, Tunisia, Libya, Egypt, Azerbaijan, Turkey, Syria, Lebanon, Israel, Iraq, Iran, Afghanistan, Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan, Oman, Bahrain, Saudi Arabia, India.

Podalonia alpina (Kohl, 1888)

Material. Russia. *Dagestan:* 1♀ — Dokuzparinsky District, near Kurush [2500–3000 m], 28.VIII.1926, M. Ryabov (ZISP).

Distribution. Russia (*Dagestan, Altai Republic, Tuva). — France, Switzerland, Liechtenstein, Germany, Austria, Spain, Italy, Macedonia, Bulgaria, Morocco, Turkey, Iran, Afghanistan, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia, China (Shaanxi).

Podalonia ebenina (Spinola, 1839)

Material. Russia. *Dagestan:* 1♀ — no specific locality (ZISP).

Distribution. *Russia (Dagestan). — Spain, Italy, Greece, Algeria, Libya, Egypt, Armenia, Turkey, Syria, Jordan, Lebanon, Israel, Kuwait, Iraq, Iran, Afghanistan, Turkmenistan, Uzbekistan, Tajikistan, Kazakhstan.

Podalonia fera (Lepelletier de Saint Fargeau, 1845)

Material. Russia. *Kalmykia:* 9♀♀, 21♂♂ — Yashkuly District, near Hulhuta, 15.VII.2015, SB, VL, MM, MP (CMM); 1♀ — ibid, 29.V.2016, MM, (CMM); 10♀♀, 41♂♂ — Yashkuly District, near Yashkul, 16.VII.2015, SB, VL, MM, MP (CMM); 2♀♀, 1♂ — Lagansky District, near Lagan, 24.VII.2015, SB, VL, MM, MP (CMM); 14♀♀, 9♂♂ — Oktyabrsky District, near Tsagan-Nur, 13.VII.2015, SB, VL, MM, MP (CMM); 6♀♀, 17♂♂ — Chernozemelsky District, near Komsomolsky, 18.VII.2015, SB, VL, MM, MP (CMM); 4♀♀, 45♂♂ — Ketchenerovsky District, Ketchenery, 14.VII.2015, SB, VL, MM, MP (CMM); *Stavropol Terr.:* 3♀♀, 28♂♂ — Neftekumsky District, Zimnyaya Stavka, 19.VII.1911, B. Uvarov (ZISP); 2♀♀ — Petrovsky District, Svetlograd, 03.IX.1927, V. Belizin (ZISP); 1♀ — ibid, 17.VI.1927, S. Melova (ZISP); *Adygea:* 1♀ — Maykopsky District, Kisha River, 25.VI.1911, Volnuhin (ZISP); *Dagestan:* 1♀ — Kizlyarsky District, Tushilovka, 25.V.1911, A. Kirichenko (ZISP); 1♀ — Tarumovsky District, near Kochubey, 22.VII.2015, SB, VL, MM, MP (CMM); 6♀♀, 4♂♂ — Tarumovsky District, near Artezian, Kuma river, 19.VII.2015, SB, VL, MM, MP (CMM); 1♀ — ibid, 04.VI.2016, MM (CMM); *Orenburg Prov.:* 1♀ — Orenburgsky District, Pervomajskij (Donguz), 02.VIII.1933, L. Zimin (ZISP). *Georgia. Kvemo-Kartli:* 1♀ — near Dzhandari, 24.VI.2016, MM (CMM).

Distribution. Russia (Mordovia, Belgorod Prov., Voronezh Prov., Rostov Prov., Volgograd Prov., *Kalmykia, Astrakhan Prov., Krasnodar Terr., *Stavropol Terr., *Adygea, *Dagestan, Crimea, *Orenburg Prov.). — France, Italy, Romania, Bulgaria, Greece, Ukraine, Abkhazia, *Georgia, Armenia, Turkey, Syria, Iran, Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan.

Podalonia luffii (E. Saunders, 1903)

Material. Russia. *Kalmykia:* 2♀♀ — Lagansky District, near Lagan, 24.VII.2015, SB, VL, MM, MP (CMM); *Orenburg Prov.:* 1♂ — Majachnaja Station near Sol-Iletsk, 06.VIII.1933, L. Zimin (ZISP); *Buryatia:* 1♂ — Kyakhtinsky District, near Chikoy (ZISP).

Distribution. Russia (Nizhny Novgorod Prov., Belgorod Prov., Chuvashia, Tatarstan, Samara Prov., Rostov Prov., *Kalmykia, Krasnodar Terr., Crimea, *Orenburg Prov., Novosibirsk Prov., Altai Terr., Tuva, Krasnoyarsk Terr., *Buryatia). — Great Britain, Denmark, Sweden, Estonia, Lithuania, France, the Netherlands, Belgium, Switzerland, Germany, Austria, Poland, Czech Republic, Slovakia, Hungary, Portugal, Spain, Bulgaria, Belarus, Ukraine, Turkey, Syria, Iran, Turkmenistan, Uzbekistan, Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia.

Ammophila adelpha Kohl, 1901

Material. Russia. *Kalmykia:* 1♀ — Yashkuly District, near Hulhuta, 30.V.2016, MM (CMM).

Distribution. *Russia (Kalmykia). — Iran, Kazakhstan, Kyrgyzstan, Uzbekistan, China (Xinjiang).

Ammophila elongata Fischer de Waldheim, 1843

Material. Russia. *Volgograd Prov.:* 1♀, 2♂♂ — Pallasovsky District, Lake Elton, 04.VI.1996, V. Dubatolov, I. Liubechanskij (ISEN); *Amur Prov.:* 1♀ — Amur, no specific locality, L.I. Schrenck [Travel of L.I. Schrenck in Amurland at 1854–1856] (ZISP).

Distribution. Russia (*Volgograd Prov., Orenburg Prov., *Amur Prov.). — Turkey, Iran, Turkmenistan, Kazakhstan, Mongolia.

Ammophila occipitalis F. Morawitz, 1890

Material. Russia. *Dagestan:* 2♀♀, 3♂♂ — Tarumovsky District, near Kochubey, 22.VII.2015, SB, VL, MM, MP (CMM); 1♂ — Tarumovsky District, near Artezian, Kuma river, 3.VI.2016, MM (CMM).

Distribution. Russia (Astrakhan Prov., *Dagestan). — Jordan, Iraq, Iran, Turkmenistan, Uzbekistan, Tajikistan, Kazakhstan.

Ammophila pubescens Curtis, 1836

Material. Russia. *Karelia:* 2♀♀ — Segezhsy District, Lake Vygozero, VII.1921 (ZISP); *Novgorod Prov.:* 1♂ — Valdaysky District, Edrovo, 29.VI.1902, N. Olsufiev (ZISP); *Leningrad Prov.:* 1♀ — Luzhsky District, near Luga, 11.VII.1922, V. Fridolin (ZISP); 1♀ — ibid, 22.VIII.1920, V. Fridolin (ZISP); 1♀ — ibid, 18.VIII.1929, Luppova (ZISP); 2♀♀ — Luzhsky District, Tolmachovo, 12.VIII.1898 (ZISP); 1♀ — Saint Petersburg, 20.VII.1888 (ZISP); 1♀ — Lomonosovsky District, Chernaya Lahta, 17.VII.1900, Bianki (ZISP); *Tver Prov.:* 1♀ — Rzhev, 9.VII.1891, Bianki (ZISP); *Moscow Prov.:* 2♀♀ — Moscow, 21.VIII.1923 (ZISP); *Penza Prov.:* 1♀ — Belinsky, 19.VI.1964, Czekanowski (ZISP); *Karachay-Cherkessia:* 2♀♀ — Teberda, 6–28.VIII.1951, Arens (ZISP); *Bashkortostan:* 1♀ — Birs, 1918, Kossakovsky (ZISP); 1♀ — Irgizla River, 29.VI.1899, Shmidt (ZISP); 1♀, 1♂ — Belebej, 19.VI.1907, A. Grigoriev (ZISP); *Jewish AO:* 1♂ — Obluchensky District, near Obluchye, 20.VII.1998, V. Dubatolov, A. Streltsov (ISEN).

Distribution. Russia (*Karelia, *Leningrad Prov., *Novgorod Prov., *Tver Prov., Yaroslavl Prov., *Moscow Prov., Vladimir Prov., Ivanovo Prov., Nizhny Novgorod Prov., Ryazan Prov., Mordovia, Bryansk Prov., *Penza Prov., Belgorod Prov., Voronezh Prov., Kirov Prov., Chuvashia, Tatarstan, *Karachay-Cherkessia, Crimea, Sverdlovsk Prov., *Bashkortostan, Chelyabinsk Prov., Orenburg Prov., Kurgan

Prov., Tyumen Prov., Omsk Prov., Tomsk Prov., Novosibirsk Prov., Kemerovo Prov., Altai Terr., Altai Republic, Khakassia, Tuva, Krasnoyarsk Terr., Irkutsk Prov., Buryatia, Yakutia, Zabaykalsky Terr., Amur Prov., Khabarovsk Terr., *Jewish AO, Primorsky Terr.). — Great Britain, Denmark, Sweden, Finland, Estonia, Latvia, Lithuania, France, Netherlands, Belgium, Luxembourg, Switzerland, Germany, Austria, Poland, Czech Republic, Slovakia, Hungary, Slovenia, Spain, Italy, Croatia, Bulgaria, Belarus, Ukraine, Turkey, Iran, Kazakhstan, Mongolia, China (Heilongjiang), Canada, USA.

Ammophila tekkensis Gussakovskij, 1930

Material. Russia. Kalmykia: 1♀, 2♂♂ — Yashkul'sky District, near Hullhuta, 15.07.2015, SB, VL, MM, MP (CMM); 5♀♀, 1♂ — ibid, 28–30.V.2016, MM (CMM); Astrakhan Prov.: 1♀ — Kharabalinsky District, near Lapas, 07.VI.2016, MM (CMM); 1♀, 2♂♂ — Krasnoyarsky District, near Dosang, 01.VI.2006, O. Kalinina, M. Pestov (CMM); 4♀♀, 1♂ — ibid, 06–08.VI.2016, MM, (CMM); 2♀♀, 1♂ — Narimanovsky District, near Krasnopestchaniy, 28.V.2016, MM, (CMM); 3♀♀, 1♂ — Enotayeysky District, near Zamjany, 22.07.2015, SB, VL, MM, MP (CMM); 1♂ — Enotayeysky District, near Volzhskij, 27.V.2016, MM (CMM); 2♀♀ — ibid, 6–07.VIII.2016, MM, (CMM).

Distribution. *Russia (Kalmykia, Astrakhan Prov.). — Iran, Turkmenistan, Uzbekistan, Kazakhstan.

Taxonomy

Podalonia flavida (Kohl, 1901)

Ammophila flavida Kohl, 1901: 163, ♀, lectotype: ♀, China: Neimenggu: no specific locality (NHMW), designated by Dollfuss, 2010b: 1256; Kohl, 1906: 283; Gussakovskij, 1934: 4; Tsuneki, 1971a: 145, 1971b: 4.

Podalonia flavida: Yasumatsu, 1940: 92; Bohart, Menke, 1976: 144; Nemkov, 1990: 79, 2005: 141; Nemkov et al., 1995: 385; Hua, 2006: 276; Nemkov, 2008: 17; Danilov, 2009: 55; Nemkov, 2009a: 47, 2009b: 235; Danilov, 2010: 45; Dollfuss, 2010a: 547, 2010b: 1246, 1248, 1256; Danilov, 2011a: 189, 2011b: 202; Nemkov, 2012: 434; Dollfuss, 2013: 588; Danilov, 2014a: 425; 2014b: 518; Wang et al., 2016: 449; Pulawski, 2016.

Ammophila obo Tsuneki, 1971a: 146, ♂, holotype: ♂, Mongolia: Bulgan Aymag: Somon Dashinchilen (TMB). Synonymized with *Podalonia flavida* by Dollfuss, 2010b: 1256.

Podalonia obo: Bohart, Menke, 1976: 144; Nemkov, 1986: 93; Wu, Zhou, 1996: 62; Hua, 2006: 276.

Ammophila rothi de Beaumont, 1951: 260, ♀, ♂, holotype: ♀, Morocco, «Maroc. Midelt 30 V 1947 J. de Beaumont // Typus [red label] // rothi Beaum. J. de Beaumont det. 1943 f ♂ Typus» (MCZL), examined, **syn. n.**; 1958: 291, 1967: 261; Lomholdt, 1975: 7.

Podalonia rothi: Leclercq, 1955: 66; Bohart, Menke, 1976: 145; Smit, 2000: 173; Gayubo, Özbek, 2005: 11; Gayubo et al., 2006: 206; Ljubomirov, Yildirim, 2008: 46; Gayubo et al., 2009: 362; González et al., 2009: 622; Bitsch, 2010: 107; Dollfuss, 2010a: 556, 2010b: 1246, 1248, 1265; Danilov, 2014a: 426, 2014b: 518; Mokrousov, Vafin, 2014: 54; Yildirim, 2014: 30; Mokrousov, Popov, 2016: 562; Pulawski, 2016.

Diagnosis. The male of *P. flavida* (Kohl) similar with *P. tydei* (Le Guillou), *P. fera* (Lepeletier de Saint Fargeau), *P. luffii* (E. Saunders), *P. mauritanica* (Mercet), *P. albohirsuta* (Tsuneki) and *P. pungens* (Kohl), but differs from *P. tydei* (Le Guillou) and *P. fera* (Lepeletier de Saint Fargeau) by having body with appressed silvery setae; from *P. luffii*

(E. Saunders) and *P. mauritanica* (Mercet) by shape of penis valves and shape of clypeus; from *P. albohirsuta* (Tsuneki) and *P. pungens* (Kohl) by shape of penis valves. The female of *P. flavida* (Kohl) similar with *P. tydei* (Le Guillou), *P. luffii* (E. Saunders), *P. mauritanica* (Mercet), *P. fera* (Lepeletier de Saint Fargeau) and *P. kaszabi* (Tsuneki) but differs from *P. tydei* (Le Guillou) by having body with appressed silvery setae; from *P. luffii* (E. Saunders) and *P. mauritanica* (Mercet) by partly red mandible and distinctly asymmetrical protarsomeres; from *P. kaszabi* (Tsuneki) and *P. fera* (Lepeletier de Saint Fargeau) by scutum with sparse, scattered and more finely punctures.

Description. Male. Body length 12–19 mm. Head black. Clypeus slightly elongate; apical margin slightly emarginated. Clypeus, subantennal sclerite and paraocular areas of frons with appressed silvery setae. Vertex, occiput and gena microsculptured, sparsely punctate. Head with erect setae, black on vertex and occiput. Mandible and palpi black. **Mesosoma.** Black. Pronotum sparsely punctate, more or less shiny. Scutum densely punctate (punctures 1 diameter apart), interspaces more or less shiny. Mesopleuron punctate and slightly rugose. Scutellum longitudinally ridged in posterior half. Pro- and mesosoma with black erect setae. Metapleuron and propodeum rugose. Propodeal enclosure (metapostnotum) rugose, with white erect setae. Mesosoma with white erect setae. Tegula black. Wings yellowish in specimens from east part of the range and hyaline in western populations; veins amber or brown. Legs black. Arolia distinct. Claws without subbasal tooth. Spines of legs black. **Metasoma.** T1–T3, S1 (except petiole)–S3 red, sometimes anterior part of T4, S4 red; petiole, T4–T7, S4–S7 black. Penis valve slender, in lateral view with large thorn apicoventrally.

Female. Body length 13–19 mm. Head black. Clypeus convex medially. Clypeus, subantennal sclerite and frons without appressed setae. Vertex and occiput microsculptured, punctate. Erect setae black. Mandible and palpi black. **Mesosoma** black. Pronotum sparsely punctate, shiny. Scutum shiny, densely punctate (punctures 1 diameter apart). Mesopleuron punctate and rugose. Metapleuron and propodeum rugose. Propodeal enclosure (metapostnotum) rugose, with white erect setae. Erect setae of pronotum, scutum and propodeum black and white; pro-, meso- and metapleuron with black erect setae. Tegula black. Wings yellowish in specimens from east part of the range and hyaline in western populations; veins amber or brown. Legs black. Protarsomeres slightly asymmetrical. Arolia distinct. Claws without subbasal tooth. Spines of legs black. **Metasoma.** T1– part of T4, S1 (except petiole) — part of S4 red; petiole, T4–T6, S4–S6 black.

Remarks. We synonymized *P. flavida* and *P. rothi* based on the specimens of *P. flavida* from Eastern Siberia and Mongolia and specimens, which are designated as *rothi* from Western Siberia, Kazakhstan (many localities), European Russia, Italia (Sicilia) and the holotype of *P. rothi* (de Beaumont) from Morocco. During the study of these specimens we are not find any differences except the differences in the color of the wings in the males and in the females.

Material from new localities. Russia. Volgograd Prov.: 3♂♂ — Pallasovsky District, Lake Elton, 25.V–5.VI.1996, V. Dubatolov, I. Liubechanskij (ISEN); 4♀♀ — Kalachyovsky District, near Buzinovka, 27.IX.2011, MM (CMM); 3♀♀ — Leninsky District, near Leninsk, 26.IX.2011, MM (CMM); 6♀♀ — ibid, 13.X.2014, MM (CMM); 1♀, 1♂ — Dubovskiy District, near Peskovatka, 28.IX.2011, MM (CMM); **Crimea:** 1♂ — Feodosia, 8.VIII.1937, S. Malyshev (ZISP); **Kalmykia:** 1♀ — Yashkul'sky District, near Yashkul, 01.VI.2016, MM

(CMM); **Orenburg Prov.**: 2♂♂ — Majachnaja Station near Sol-Ilets'k, 6.VIII.1933, L. Zimin (ZISP). **Italy. Sicilia**: 1♀ — no specific locality, Kohl (ZISP). **Turkmenistan**. 1♂ — Ashgabat, 9.VII.1928, V. Gussakovskij (ZISP). **Tajikistan**. 1♀, 1♂ — Tavildara District, Ruidasht, 4.IX.1937, Gussakovskij (ZISP).

Distribution. Russia (Tatarstan, *Volgograd Prov., *Kalmykia, Krasnodar Terr., *Crimea, *Orenburg Prov., Omsk Prov., Novosibirsk Prov., Altai Terr., Khakassia, Tuva, Irkutsk Prov., Buryatia, Zabayskyy Terr., Primorsky Terr., Sakhalin). — Spain, *Italy, Canary Islands, Morocco, Tunisia, Turkey, *Turkmenistan, Uzbekistan, *Tajikistan, Kazakhstan, Mongolia, China (Neimenggu).

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