

The spider wasp family Pompilidae (Hymenoptera: Aculeata: Pompiloidea) in Uzbekistan: annotated checklist with first faunal records

Natalya I. Lebedeva¹, Askar G. Akhmedov¹, Gulnara S. Mirzaeva¹,
Dilshod M. Musaev¹, Shokhruz N. Nazarov¹, Mirsobir S. Azamov¹,
Makhbuba I. Abdullaeva¹, Aziza A. Kholmirezayeva², Marifat O. Hudoyberdieva³

1 Institute of Zoology, Academy of Sciences of Uzbekistan, Tashkent, Uzbekistan

2 Jizzakh State Pedagogical University named after Abdulla Qodiriy of the Republic of Uzbekistan, 4 Sh. Rashidov St., Jizzakh, 130100, Uzbekistan

3 Tashkent State Medical University, 2 Farabi St., Tashkent, 100109, Uzbekistan

Corresponding author: Natalya I. Lebedeva (n_lebedeva60@mail.ru)

Academic editor: A. Matsyura | Received 5 October 2025 | Accepted 25 December 2025 | Published 22 January 2026

<http://zoobank.org/F3E08AC6-D127-429F-A3D2-A8EE8BBE062D>

Citation: Lebedeva NI, Akhmedov AG, Mirzaeva GS, Musaev DM, Nazarov ShN, Azamov MS, Abdullaeva MI, Kholmirezayeva AA, Hudoyberdieva MO (2026) The spider wasp family Pompilidae (Hymenoptera: Aculeata: Pompiloidea) in Uzbekistan: annotated checklist with first faunal records. Acta Biologica Sibirica 12: 59–84. <https://doi.org/10.5281/zenodo.18310226>

Abstract

This paper presents, for the first time, a review of the fauna of spider wasps (Pompilidae) of Uzbekistan. The review includes 132 species and 1 subspecies, 4 species undetermined to species level (sp.), belonging to 28 genera, 8 tribes, and 3 subfamilies recorded within the territory of Uzbekistan. The data are based on published literature and materials collected during 1909–1978, which are preserved in the Entomological Collection of the State Museum of Nature of Uzbekistan. Among these, 9 species are recorded for the first time for the fauna of Uzbekistan, namely: *Cryptocheilus* (*Cryptocheilus*) *alternatus caspius* Gussakovskij, 1952; *Priocnemis* (*Priocnemis*) *minuta* (Vander Linden, 1827); *Priocnemis* (*Umbripennis*) *gypsochtona* Gussakovskij, 1930; *Tachyagetes* (*Tachyagetes*) *excellens* (Haupt, 1930); *Arachnospila* (*Ammosphex*) *trivialis* (Dahlbom, 1843); *Arachnospila* (*Arachnospila*) *binaeva* Haupt, 1930; *Arachnospila* (*Arachnospila*) *rufa* (Haupt, 1927); *Paracyphononyx pavlovskiyi* Gussakovskij, 1952; *Arachnotheutes rufithorax* (Costa, 1882).

Keywords

New record, aculeate wasps, fauna, Central Asia

Introduction

The family Pompilidae (commonly known as spider wasps) is one of the largest families among the aculeate wasps. The world fauna of this family comprises 254 genera and 4,855 species, of which approximately 65 genera and about 1,000 species occur in the Palearctic region (Loktionov and Lelej 2017); In the Neotropical region, there are 63 genera and 946 species (Fernández et al. 2022). Spider wasps are especially abundant in tropical regions. In North America, 35 genera have been recorded; in Australia, more than 40 genera (Elliott 2007); and in Mexico, 46 genera and 305 species, including 126 endemic species (Vanoye-Eligio et al. 2021). Within the territory of the former Soviet Union, about 285 species have been recorded, with the highest diversity in Transcaucasia and Central Asia (Loktionov and Lelej 2014).

The family Pompilidae (spider wasps) includes five subfamilies: Ctenocerinae, Notocyphinae, Ceropalinae, Pepsinae, and Pompilinae (Waichert et al. 2015), of which the last three have been recorded in Uzbekistan.

Spider wasps (Pompilidae) lead a solitary lifestyle, yet they are morphologically and biologically diverse. They nest in the ground, construct mud nests, or utilize cavities in wood or plant stems. Most species hunt spiders themselves, while others use spiders captured by wasps of the subfamily Ceropalinae, or lay their eggs in the nests of other pompilids (on the spider). Thus, they can be classified as predators, ectoparasitoids, and kleptoparasites.

The study of the Hymenoptera fauna in Central Asia has a history of almost 150 years. A significant contribution to the research on spider wasps in Central Asia during the XIX century was made by F. Morawitz (1891), O.I. Radoszkowski (1877a, 1877b, 1887, 1888), V.V. Gussakovskij (1926, 1929, 1930, 1931, 1932, 1933, 1935, and others). Later, in the 20th century, important studies were conducted by A.S. Lelej, V.M. Loktionov, M.V. Mokrousov, L. Móczar, H. Wolf, S.L. Zonstein, and other researchers.

The fauna of spider wasps in Central Asia is rich, yet it remains insufficiently studied in many regions, particularly in Uzbekistan. Comprehensive faunistic research on the Pompilidae of Uzbekistan is practically absent. In the literature, there are only scattered reports on the occurrence of spider wasps within the territory of Uzbekistan (Tobias 1978; Insects of Uzbekistan 1993; Lelej 2000, 2005; Wahis and Schmid-Egger 2002; Loktionov and Lelej 2009, 2012, 2014, 2017; Loktionov 2011; Lelej and Loktionov 2012, 2017; Shlyakhtenok 2013; Shlyakhtenok et al. 2017, 2021), as well as notes on sporadic collections from specific regions of the republic (Gussakovskij, 1933; Davletshina et al. 1979; Zonstein and Ovchinnikov 2002; Vashetko and Chebotarev 2007; Lelej et al. 2017), or descriptions of new species (Radoszkowsky 1877b; Móczár 1978a, 1978b, 1986, 1987, 1989; Wolf 1982, 1987,

1988a, 1988b, 1990, 1994, 1998, 2001, 2004, 2005; Zonstein 2000, 2001a, 2001b, 2001c, 2002a, 2002b, 2007a, 2007b, etc.; Wahis and Schmid-Egger 2002; Zonstein, Zonstein 2007; Mokrousov and Zryanin 2015; Zonstein, Wahis 2015).

The aim of this study is to compile an annotated list of road wasps (Hymenoptera: Aculeata: Pompiloidea) of the fauna of Uzbekistan, based on literature sources and specimens from the Entomological Collection of the State Museum of Nature of Uzbekistan.

Materials and methods

The study was based on over 300 specimens of spider wasps collected between 1909 and 1978 across the territory of Uzbekistan, preserved in the Entomological Collection of the State Museum of Nature of Uzbekistan (SMNUz). In addition, the research utilized literature sources, including the latest catalogues (Lelej and Loktionov 2012; Shlyakhtenok 2013; Loktionov and Lelej 2017) and other references concerning Pompilidae species recorded in Uzbekistan.

Abbreviations

GMPUz – State Museum of Nature of Uzbekistan, Tashkent, Uzbekistan.

IZ AS RUz – Institute of Zoology of the Academy of Sciences of the Republic of Uzbekistan, Tashkent, Uzbekistan.

TAUI – Zoological Museum, Tel Aviv University, Tel Aviv, Israel.

ZISP – Zoological Institute, Russian Academy of Sciences, St. Petersburg, Russia.

ZMMU – Zoological Museum of Moscow University, Moscow, Russia.

Results

Based on the analysis of literature sources on spider wasps and the materials from the Entomological Collection of the State Museum of Nature of Uzbekistan, an annotated list of spider wasps of Uzbekistan was compiled. The list below includes references to literature sources, specimen data, and collection localities of the pompilid species.

The superfamilies, families, tribes and genera are arranged according to their taxonomic classification, and the species within each genus are listed in alphabetical order.

Class: Insecta (Linnaeus, 1758) - Insects

Subclass: Pterygota Gegenbaur, 1878 – Winged or higher insects

Order: Hymenoptera Linnaeus, 1758 - Hymenopterans

Suborder: Apocrita Gerstaecker, 1867 – Narrow-waisted wasps

Superfamily: Pompiloidea

Family POMPILIDAE Fabricius, 1798 - Spider Wasps

Subfamily CEROPALINAE Radoszkowski, 1888

Genus *Ceropales* Latreille, 1796

Subgenus *Bifidoceropales* Priesner, 1969

Ceropales (*Bifidoceropales*) *pygmaea pygmaea* Kohl, 1880 (Guzar: see Móczár 1978b: 350).

Subgenus *Ceropales* Latreille, 1796

Ceropales (*Ceropales*) *albicincta seraxensis* Radoszkowski, 1893 (Khiva, etc.: see Móczár 1978a: 134).

Ceropales (*Ceropales*) *bogdanovii bogdanovii* Radoszkowski, 1877 (Uzbekistan: see Loktionov and Lelej 2017: 160).

Ceropales (*Ceropales*) *bogdanovii sabulosa* F. Morawitz, 1891 (Uzbekistan: see Móczár 1978b: 358; Loktionov and Lelej, 2017: 160).

Ceropales (*Ceropales*) *helvetica helvetica* Tournier, 1889 (Uzbekistan: see Móczár 1989: 28; Loktionov and Lelej, 2017: 160).

Ceropales (*Ceropales*) *maculata* (Fabricius, 1775) (Fergana Valley: see Radoszkowski 1877b: 14).

Material: Namangan Region: “Podsha Ata, 15.VIII.33”, det. “*Ceropales maculata nigra* Rad., ♀” – 1♀ (GMPUz).

Ceropalus (*Ceropales*) *opator* Priesner, 1955 (Tashkent: see Wolf 1998: 338).

Ceropales (*Ceropales*) *solskii* Radoszkowski, 1877 (Uzbekistan: see Gussakovskij 1926: 251; Móczár 1987: 140).

Ceropales (*Ceropales*) *variegata* (Fabricius, 1798) (Samarqand Region: see Moczár 1978a: 117).

Subgenus *Hemiceropales* Priesner, 1969

Ceropales (Hemiceropales) cribrata cribrata Costa, 1881 (Uzbekistan: see Móczár 1986: 332; Loktionov and Lelej 2017: 161).

Subfamily PEPSINAE Lepeletier de Saint-Fargeau, 1845

Tribe Auplopodini Pate, 1946 (1934)

Subtribe Auplopodina Pate, 1941

Genus *Auplopus* Spinola, 1841

Subgenus *Auplopus* Spinola, 1841

Auplopus (Auplopus) rectus (Haupt, 1927) (Uzbekistan: see Wolf 1998: 336; Loktionov and Lelej, 2017: 165).

Auplopus (Auplopus) rufiventris (Radoszkowski, 1877) (Uzbekistan: see Wolf 1998: 337; Tashkent Region: see Zonstein and Ovchinnikov 2002: 116; Vashetko and Chebotarev 2007: 170).

Material: UZBEKISTAN: Jizzakh Region: “Uzbekistan, Turkestanskii hr., Zaaminskii zap, Kulsai, 2100 m, 7.08.1961, Bekuzin”, det. “S. Zonstein, 1996 – *Auplopus rufiventris* (Radosz., 1877)” – 1♀ (GMPUz).

Tribe Pepsini Lepeletier, 1845

Genus *Cryptocheilus* Panzer, 1806

Subgenus *Adonta* Billberg, 1820

Cryptocheilus (Adonta) albosignatus Šustera, 1924 (Pungan, Samarqand: see Wolf 1998: 338).

Cryptocheilus (Adonta) bequaerti Šustera, 1924 (Pungan: see Wolf 1998: 338).

Cryptocheilus (Adonta) carinatus Zonstein, 2001 (Zeravshan Mts.: see Zonstein 2001c: 136).

Cryptocheilus (Adonta) confinis Haupt, 1927 (Jizzax: see Wolf 1998: 338).

Cryptocheilus (Adonta) desertorum (Morawitz, 1891) (Uzbekistan: see Wolf 1998: 338; Tashkent Region: see Zonstein and Ovchinnikov 2002: 116; Vashetko and Chebotarev 2007: 170).

Cryptocheilus (Adonta) fischeri (Spinola, 1838) (Uzbekistan: see Zonstein 2007b: 226; Loktionov and Lelej 2017: 161).

Cryptocheilus (Adonta) guttulatus (Costa, 1887) (Uzbekistan: see Wolf 1998: 339; Loktionov and Lelej 2017: 161).

Cryptocheilus (Adonta) hispanicus Šuster, 1924 (Samarqand: see Wolf 1998: 339).

Cryptocheilus (Adonta) moravitzii (Radoszkowski, 1877) (Samarkand Region: see Zonstein 2007b: 229).

Material: UZBEKISTAN: “Ferganskaya dolina, st. Iessen, ady`ry`, 19.V.1940, Chirkun”, “Zonstein det., 1996 – *Cryptocheilus* aff. *moravitzii*, ♀” – 1♀; vy`gorela, “Zonstein det., 1996 – *Cryptocheilus* aff. *moravitzii*, ♂” – 1♂ (GMPUz).

Cryptocheilus (Adonta) nigripennis (Gussakovskij, 1952) (Surkhandarya Region: see Zonstein 2007b: 229–230).

Cryptocheilus (Adonta) nigrilatus Gussakovskij, 1952 (Samarqand, etc.: see Wolf 1998: 339).

Cryptocheilus (Adonta) notatus notatus (Rossi, 1792) (Zeravshan Rg.: see Wolf 2004: 1146; Uzbekistan: Loktionov and Lelej 2017: 161).

Material: UZBEKISTAN: Tashkent Region: “Ugamskii hr., ush. Kainarsay, 15.07.1977, G.F. Kolyuh”, det. “S. Zonstein, 1996 – *Cryptocheilus* sp. ex. gr. *notatus*” – 1♀ (GMPUz).

Cryptocheilus (Adonta) octomaculatus (Rossi, 1790) (Tashkent Region: see Zonstein and Ovchinnikov 2002: 116; Vashetko and Chebotarev 2007: 170).

Cryptocheilus (Adonta) oxianus Zonstein, 2001 (Surkhandarya Region: see Zonstein 2001c: 135–136).

Cryptocheilus (Adonta) richardsi Móczár, 1953 (Uzbekistan: see Wolf 1998: 339; Loktionov and Lelej 2017: 161).

Material: UZBEKISTAN: Tashkent Region: “Karzhantau, lyucerna I p., koshenie, 21.VII.37”, det. “*Cryptocheilus variegatus* F.”; “Zonstein det., 1996 – *Cryptocheilus richardsi* Moc.” – 1♀; “Ferganskaya dolina, st. Iessen, na gigantskom molochae, 19.V.1940, Chirkun”, “Zonstein det., 1996 – *Cryptocheilus richardsi* Moc.” – 3♀, 2♂; “Ferganskaya dolina, k. Yaz-Yavan, solodka, 12.V.1940, Chirkun”, “Zonstein det., 1996 – *Cryptocheilus richardsi* Moc., ♀” – 1♀ (GMPUz).

Cryptocheilus (Adonta) rogenhoferi (Radoszkowski, 1887) (Tashkent Region: see Zonstein and Ovchinnikov 2002: 116; Vashetko and Chebotarev 2007: 170; Tashkent, Kashkadarya, Bukhara Regions: Zonstein 2007b: 235).

Material: “UZBEKISTAN: Tashkent Region: “Boshkizy’l saj, trav. kust, 17.VII.51, P. Banov”, “Zonstein det., 1996 – *Cryptocheilus rogenhoferi* Rad., ♀” – 1♀; “Kara-Mazar, 10.VI.29, I. Yank[ovskij]”, “Zonstein det., 1996 – *Cryptocheilus rogenhoferi* Rad., ♀” – 1♀; “Ferganskaya dolina, st. Iessen, na gigantskom molochae, 19.V.1940, Chirkun”, “Zonstein det., 1996 – *Cryptocheilus rogenhoferi* Rad., ♂” – 1♂ (GMPUz).

Cryptocheilus (Adonta) sarafschani (Radoszkowski, 1877) (Surkhandarya, Kashkadarya Regions: see Zonstein 2007b: 239).

Cryptocheilus (Adonta) sarbaz S. Zonstein, 2007 (Tashkent: see Zonstein 2007b: 241).

Cryptocheilus (Adonta) semicastaneus (F. Morawitz, 1894) (Samarqand: see Wolf 1998: 339)

Cryptocheilus (Adonta) variabilis (Rossi, 1790) (Uzbekistan: see Wolf 1998: 339; 2005: 1746; Loktionov and Lelej 2017: 161).

Subgenus *Chyphonocheilus* Wolf, 1970

Cryptocheilus (Chyphonocheilus) rubellus (Eversmann, 1846) (Uzbekistan: see Wolf 1998: 339; Loktionov and Lelej 2017: 162).

Material: UZBEKISTAN: “Golodnaya step’”, det. “*Cryptocheilus rubellus* Ev., ♀” – 1♀, “Chr. Kos. Aral S.-D., 3.VI.11, D. Lyutin”; det. “*Cryptocheilus rubellus* Ev., ♀” – 1♀; 19.., det. “*Cryptocheilus rubellus* Ev., ♀” – 1♀ (GMPUz).

Subgenus *Cryptocheilus* Panzer, 1806

Cryptocheilus (Cryptocheilus) alternatus caspius Gussakovskij, 1952

Material: First record for UZBEKISTAN: “pusty`nya Yu. Kizil Kum, k. sot. Nurat.[inskij] xr., 22.V.26, E`ksp.”, det. “*Cryptochilus annulatus caspius* Giss., ♀” – 2♀, (GMPUz).

Cryptocheilus (Cryptocheilus) discolor (Fabricius, 1793) (Uzbekistan: see Wolf 1998: 338; 2005: 1746; Tashkent Region: see Zonstein and Ovchinnikov 2002: 116; Vashetko and Chebotarev 2007: 170; Surkhandarya, Kashkadarya: see Mokrousov and Zryanin 2015: 39; Uzbekistan: see Loktionov and Lelej 2017: 162).

Material: UZBEKISTAN: Jizzakh Region: “xr. Nuratau, okr. s. Farish, 24.05.1972, G.F. Kolyux”, “S. Zonstein det., 1997 – *Cryptocheilus discolor* (F., 1973), ♀” – 1♀; Tashkent Region: “Ok-tash, 25.V.26, N. Kuznecov”, det. “*Cryptochilus discolor* F., ♀” – 2♀; “r. Sy`r-Dar`ya, Chittatugaj, 1.07.1961, G.F. Kolyux”, “S. Zonstein det., 1997 *Cryptocheilus discolor* (F., 1973), ♀” – 1♀ (GMPUz).

Genus *Hemipepsis* Dahlbom, 1844

Hemipepsis sogdiana Zonstein, 2000 (Tashkent Region: see Zonstein 2000: 167–168; Zonstein and Ovchinnikov 2002: 116; Vashetko and Chebotarev 2007: 170).

Tribe Priocnemini Banks, 1934

Genus *Claveliocnemis* Wolf, 1968

Claveliocnemis brachypteris (Gussakovskij, 1935) (= *Priocnemis brachypteris* Gussakovskij, 1935) (Samarkand, Surkhandarya Regions: see Zonstein 2007a: 209–210).

Claveliocnemis incisipennis Wolf, 1968 (Samarkand, Surkhandarya Regions: see Zonstein 2007a: 210–211).

Genus *Priocnemis* Schiødte, 1837

Subgenus *Priocnemis* Schiødte, 1837

Priocnemis (*Priocnemis*) *agilis* (Shuckard, 1837) (Uzbekistan: see Wolf 1998: 344; Loktionov and Lelej 2017: 163; Shlyakhtenok et al. 2017: 30).

Priocnemis (*Priocnemis*) *exaltata* (Fabricius, 1775) (Uzbekistan: see Shlyakhtenok et al. 2017: 30).

Priocnemis (*Priocnemis*) *hyalinata* (Fabricius, 1793) (= *Priocnemis* (*Priocnemis*) *femoralis* (Dahlbom, 1829)) (Uzbekistan: see Tobias 1978: 100; Loktionov and Lelej 2017: 163; Shlyakhtenok et al. 2017: 30).

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

Material: First record for UZBEKISTAN: “Xivinskij oasis, p. Dashak, 24.IV.1941, Chirkun”, “Zonstein det., 1996 – *Priocnemis minuta* V.D.L., ♂” – 1♂ (GMPUz).

Priocnemis (*Priocnemis*) *parvula* Dahlbom, 1845 (Uzbekistan: see Wolf 1998: 345; Loktionov and Lelej 2017: 163; Shlyakhtenok et al. 2017: 30, 34).

Material: UZBEKISTAN: Tashkent Region: “Karzhantau, galechnik, 25.VII.1939, Obuxova”, “Zonstein det., 1996 – *Priocnemis* off. *parvula* V.L., ♀” – 1♀ (GMPUz).

Subgenus *Umbripennis* Junco y Reyes, 1947

Priocnemis (Umbripennis) fallax Verhoeff, 1892 (Uzbekistan: see Wolf 2005: 1750; Loktionov and Lelej 2017: 163).

Priocnemis (Umbripennis) gypsochtona Gussakovskij, 1930.

Material: First record for UZBEKISTAN: “Podsha Ata, 15.VIII.33, I.Ya.[nko-vskij]”, “Zonstein det., 1996 – *Priocnemis (Umbripennis) gypsochtona* Guss., ♀, ♂” – 1♀, 1♂ (GMPUz).

Priocnemis (Umbripennis) hankoi Móczár, 1944 (Uzbekistan: see Wolf 1998: 344; Wolf 2005: 1750; Loktionov and Lelej 2017: 163; Shlyakhtenok et al. 2017: 34).

Priocnemis (Umbripennis) melanosoma Kohl, 1880 (Uzbekistan: see Wolf 1998: 345).

Priocnemis (Umbripennis) perturbator (Harris, 1780) (Uzbekistan: see Loktionov and Lelej 2017: 164; Shlyakhtenok et al. 2017: 37).

Priocnemis (Umbripennis) sulci Balthazar, 1943 (Yangikishloq: see Wolf 1998: 344).

Priocnemis (Umbripennis) vulgaris (Dufour, 1841) (Uzbekistan: see Wolf 1998: 345; Wolf 2005: 1750; Loktionov and Lelej 2017: 164).

Material: UZBEKISTAN: Tashkent Region: “Ok-tash, 25.V.25, M. Kuznecov», det. “*Priocnemis mimulus* Wesm., ♀”; “S. Zonstein det., 1996 – *Priocnemis (Umbripennis) vulgaris* Duf., ♀” – 1♀; “Karzhantau, verx. Axit. v vozga?, 6.VII.37”, det. “*Priocnemis mimulus* Wesm.”; “S. Zonstein det., 1996 – *Priocnemis (Umbripennis) vulgaris* Duf., ♀” – 1♀; “Karzhantau, zont. lugostep`, czvety` F. karatavica, 31.V.1940, Obuxova”, “S. Zonstein det., 1996 – *Priocnemis (Umbripennis) vulgaris* Duf., ♀” – 16♀, “Karzhantau, myatlikovaya step`, 22.VI.1940, Obuxova”, “S. Zonstein det., 1996 – *Priocnemis (Umbripennis) vulgaris* Duf., ♀” – 1♀; “Karzhantau, trava u rusla, 30.VI.1940, Obuxova”, “S. Zonstein det., 1996 – *Priocnemis (Umbripennis) vulgaris* Duf., ♀” – 1♀; “Turanskij xr., okr. Ky`zy`l-Mazara. ushh. Yandarsajb, 8.08.1976, G.F. Kolyux”, “S. Zonstein det., 1996 – *Priocnemis vulgaris* (Dufour)” – 1♀ (GMPUz).

Subfamily POMPILINAE Latreille, 1805

Tribe Anopliini Ashmead, 1902

Genus *Anoplius* Dufour, 1834

Subgenus *Anoplius* Dufour, 1834

Anoplius (Anoplius) aberrans Gussakovskij, 1932 (Uzbekistan: see Wolf 1998: 332; Lelej and Loktionov 2012: 411; Loktionov and Lelej 2012b, 2014, 2017: 172).

Anoplius (Anoplius) concinnus (Dahlbom, 1843) (Uzbekistan: see Wolf 1998: 333, 2005: 1742; Tashkent Region: see Zonstein and Ovchinnikov 2002; Vashetko and Chebotarev 2007: 170; Uzbekistan: see Loktionov and Lelej 2017: 172).

Material: UZBEKISTAN: “Tashkent, 27.VI.1919, Kviton”, det. “*Anoplius concinnus* Dhlb., ♀” – 1♀; Tashkent Region: “Uzbekistan, xr. Karzhantau, Taldy’saj, 7.07.1956, A.A. Bekuzin”, “S. Zonstein det., 1997 – *Anoplius* (s. str.) *concinnus* Dhlb.” – 1♀; “Uzbekistan, xr. Karzhantau, Terebulak, 2.08.1956, A.A. Bekuzin”, “S. Zonstein det., 1997 – *Anoplius* (s. str.) *concinnus* Dhlb.” – 1♀; “Uzbekistan, xr. Karzhantau, Xumsan, 14-16.07.1958, A.A. Bekuzin”, “S. Zonstein det., 1997 – *Anoplius* (s. str.) *concinnus* Dhlb.” – 5♀; “Fergansk. dol., k. Yaman-aul, peski, 17.V.1940, Chirkun”, “S. Zonstein det., 1997 – *Anoplius* (s. str.) *concinnus* Dhlb., ♂” – 1♂; “Uzb. SSR, Fergansk. dol., st. Iessen, na gigantskom molochae, 19.05.1940, Anonym leg.”, “S. Zonstein det., 1997 – *Anoplius concinnus* Dhlb.” – 1♀; “Uzbekistan, Fergansk. dol., Tyura-Kurganskij r-n, na molochae *Euphorbia* sp., 19.05.1940, Anonym leg.”, “S. Zonstein det., 1997 – *Anoplius concinnus* Dhlb.” – 4♀; “Uzbekistan, okrestnosti Andizhana, 15.05.1957, Coll. Avanesova”, “S. Zonstein det., 1997 – *Anoplius* (s. str.) *concinnus* Dhlb.” – 1♀ (GMPUz).

Anoplius (Anoplius) nigerrimus (Scopoli, 1763) (Uzbekistan: see Wolf 1998: 333; Loktionov and Lelej 2017: 172).

Anoplius (Anoplius) separatus (Haupt, 1929) (Uzbekistan: see Lelej 2005: 132).

Subgenus *Arachnophroctonus* Howard, 1901

Anoplius (Arachnophroctonus) infuscatus (Vander Linden, 1827) (Uzbekistan: see Wolf 1998: 333; Loktionov and Lelej 2017: 172).

Material: “UZBEKISTAN, dol. r. Sy’r-Dar’ya, Chattatuchaj, 2.06.1961, G.F. Kolyux”, “S. Zonstein det., 1997 – *Anoplius* sp. aff. *infuscatus* (V.D.L.)” – 1♀; Tashkent Region: “xr. Karzhantau, trava u rusla, pritok Ugama, 6.VI.1940, Obuxova”, “Zonstein det., 1996 – *Anoplius* sp. aff. *infuscatus*” – 1♀; Ferghana Valley: “Fergansk. dol., Yaz-Yavan saj, 7.V.1940, Chirkun”, “Zonstein det., 1996 – *Anoplius* sp. aff. *infuscatus*” – 4♀; “Fergansk. dol., k. Ming-Bulak, 13.V.1940, Chirkun”, “Zonstein det., 1996 – *Anoplius* sp. aff. *infuscatus*” – 1♀; “Fergansk. dol., k. Ming-Bulak, boloto, 14.V.1940, Chirkun”, “Zonstein det., 1996 – *Anoplius* sp. aff. *infuscatus*” – 1♀; “Fergansk. dol., st. Iessen, na gigantskom molochae, 19.V.1940, Chirkun”, “Zonstein det., 1996 – *Anoplius* sp. aff. *infuscatus*” – 1♀ (GMPUz).

Anoplius (Arachnophroctonus) pseudinfuscatus Wolf, 1997 (Uzbekistan: see Wolf 1998: 333).

Anoplius (Arachnophroctonus) schlettereri (Radoszkowski, 1888) (Uzbekistan: see Wolf 1998: 333; 2005: 1743; Tashkent Region: see Zonstein and Ovchinnikov 2002: 116; Vashetko and Chebotarev 2007: 170).

Material: UZBEKISTAN: "Xivinskij oasis, peski dol. Kori, 28.IV.1941, Chirkun" – 1♀; "Xorezmsk. obl., k. Gazavat, peski, 13.V.41, Chirkun" – 1♀; Tashkent Region: "Yu.-Z. T.-Sh., Chet. saj, 5.VI.29, I. Yank." [ovskij], "N. Meyer det. – *Anoplius schlettereri* Rad." – 1♀; "Ak-tash, 25.V.26, N. Kuznecov", det. – "*Anoplius schlettereri* Rad., ♀" – 5♀; "Karzhantau, subal' p. lug, 1.VIII.37", leg. Obuxova, det. "*Anoplius schlettereri* Red." – 1♀; "Karzhantau, zalezhi, Toloka, 6.IV.1940, Obuxova" – 1♀; Ferghana Valley: "Fergansk. dol., st. Iessen, ady' ry', 19.V.1940, Chirkun", "N. Meyer det. – *Anoplius schlettereri* Rad." – 2♀; "Fergansk. dol., st. Iessen, na gigant-skom molochae, 20.V.1940, Chirkun", "N. Meyer det. – *Anoplius schlettereri* Rad." – 1♀ (GMPUz).

Anoplius (Arachnophroctonus) viaticus (Linnaeus, 1758) (Uzbekistan: see Wolf 1998: 334; 2005: 1743; Navoi, Kashksdarya Regions: see Mokrousov and Zryanin 2015: 39; Uzbekistan: see Loktionov and Lelej 2017: 172).

Material: UZBEKISTAN: Khorezm Region: "Xivinsk. oasis, peski oz. Kari, 28.IV.41, Chirkun", "S. Zonstein det., 1997 – *Anoplius viaticus* (L., 1758), ♀" – 1♀; "Xorezmsk. obl., zakreplen. peski, k. Dashak, 26.IV.41, Chirkun" – 1♀, Jizzakh Region: "xr. Nuratau, Uzbekistan, okr. s. Farish, 19.04.1976, G.F. Kolyux", "S. Zonstein det., 1997 – *Anoplius viaticus* (Linnaeus, 1758)" – 2♀; "Tashkent, lyucerna, 31.III.1941, Chirkun", "S. Zonstein det., 1997 – *Anoplius viaticus* (L., 1758), ♀" – 2♀; "Tashkent, Kara-Kamy' sh, 15.IV.1942, Chirkun", "S. Zonstein det., 1997 – *Anoplius viaticus* (L., 1758), ♀" – 1♀; Tashkent Region: "Karzhantau, subal' pijskij lug, uch. Singach, 28.VII.1938, Obuxova", det. "*Anoplius viaticus* L., ♀" – 1♀; "Karzhantau, ovrag, 12.V.39, Obuxova" – 1♀; "Karzhantau, subal' pijskij lug, oz. Susingan, 26.VI.1939, Obuxova", "S. Zonstein det., 1996 – *Anoplius viaticus* (L., 1758), ♀" – 1♀; "Karzhantau, zalezhi, Xumsan, 27.VI.1939, Obuxova", "N. Meyer det. – *Anoplius viaticus* L., ♀" – 1♀; "Karzhantau, subal' pijskij lug, 3.VII.1939, Obuxova", det. "*Anoplius viaticus* L., ♀" – 2♀; "Karakuzsaj, 29.VI.1939, Xolm", "Zonstein det., 1996 – *Anoplius viaticus* L." – 3♀; "Karzhantau, subal' pijskij lug, Karakuzsaj, 3.VII.1939, Obuxova", "N. Meyer det. – *Anoplius viaticus* L., ♀" – 1♀; "Karzhantau, subal' pijskij lug, Vost. Ming-Bulaka, 8.VII.1939, Obuxova", det. "*Anoplius viaticus* L., ♀" – 1♀; "Karzhantau, zalezhi, Toloka, 6.IV.1940, Obuxova" – 13♀; "Karzhantau, zont. lugostep', 28.IV.1940, Obuxova", "Zonstein det., 1996 – *Anoplius viaticus* L., ♀" – 3♀; "Karzhantau, Tipchak, step', 21.V.1940, Obuxova", "Zonstein det., 1996 – *Anoplius viaticus* L., ♀" – 1♀; "Karzhantau, kserof. kamen. step', 27.V.1940, Obuxova", "Zonstein det., 1996 – *Anoplius viaticus* L., ♀" – 3♀; "Karzhantau, zont. lugostep', czv. F. karatavica, 31.V.1940, Obuxova", "Zonstein det., 1996 – *Anoplius viaticus* L., ♀" – 4♀; "Karzhantau, Savansaj, 22.06.1966, G.F. Kolyux", "S. Zonstein det., 1997 – *Anoplius viaticus* (Linnaeus, 1758)" – 1♀; "Ak-tash, 25.V.1926, N. Kuznecov", det. "*Anoplius viaticus* L., ♀" – 1♀; "st. Sary'-Agach, 24.VII.1934, K. Skopin, det. – *Ano-*

plius viaticus L., ♀” – 1♀; “p. zapovedn. Bash-kzy’l saj, raznotrav. step’, 4.VII.1951”, “Zonstein det., 1996 – *Anoplius viaticus* L.” – 1♀; “Gandzha, na molochae, 6.V.1933, det. Gussakovskij – *Anoplius viaticus* L., ♀” – 1♀; “1.V.1915”, det. “*Anoplius viaticus* L., ♀” – 1♀; “19...”, “Zonstein det., 1996 – *Anoplius viaticus* L., ♀” – 1♀; “4.VII.1951, det. Zonstein, 1996 – *Anoplius viaticus* L.” – 1♀ (GMPUz).

Genus *Pareiocurgus* Haupt, 1962

Pareiocurgus nomada (Kohl, 1889) (Kashkadarya Region: see Mokrousov and Zryanin 2015: 39).

Pareiocurgus nomada latigena (F. Morawitz, 1893) (Surkhandarya, Kashkadarya, Navoi, Tashkent Regions: see Zonstein 2000: 180; Wolf 2005: 1749; Kashkadarya Region: see Mokrousov and Zryanin 2015: 40).

Material: “UZBEKISTAN: Jizzakh Region: “Uzbekistan, ushh. Kumarishkent-saj, yu. skl. Turkestanskogo xr., 19.04.1961, Bekuzin”, “S. Zonstein det., 1997 – *Pareiocurgus latigenus* (F. Mor.)” – 1♀; Tashkent Region: “Karzhantau, zont. lugostep’, 28.IV.1940, Obuxova”, “Zonstein det., 1996 – *Pareiocurgus latigena* (F. Mor.)” – 2♀; “Tashkentetskaya obl., xr. Karzhantau, zont. lugostep’, czvety’ F. karatavica, 5.VI.1940, Obuxova”, “Zonstein det. – “*Pareiocurgus latigena* F. Mor.” – 1♀; “Karzhantau, suxie sklony’, Kshi dliurta, 7.VI.1940, Obuxova”, “Zonstein det., 1996 – *Pareiocurgus latigena* F. Mor.” – 1♀; vy’ gorela - “19...”, det. “*Psammochares latigena*, ♀”; “Zonstein det., 1996 – *Pareiocurgus latigena* (F. Mor.)” – 1♀; “Iczov., 20.V.19...”, “M. Meyer det. – *Psammochares latigena* Mor.”; “Zonstein det. det., 1996 – *Psammochares latigena* Mor. N. Mur.” – 1♀ (GMPUz).

Tribe Eidopompilini Arnold, 1936

Genus *Gonaporus* Ashmead, 1902

Subgenus *Gonaporus* Zonstein, 2001

Gonaporus (*Gonaporus*) *ecbatonus*, Wolf, 1990 (= *Gonaporus* (*Gonaporus*) *flamingo* Zonstein, 2001a) (Surkhandarya Region, Baisun: see Zonstein 2001b: 140; Fergana Valley: see Zonstein, Wahis 2015: 21).

Subgenus *Stigmaporus* Zonstein, 2001

Gonaporus (*Stigmaporus*) *wolffi* Zonstein, 2001 (Kyzylkum, Gazli: see Zonstein 2001b: 143).

Genus *Kentronaporus* Wolf, 1990

Kentronaporus pachionys Wolf, 1990 (Khorezm Region, Khiva: see Wolf 1990: 636).

Genus *Microphadnus* Cameron, 1905

Microphadnus griseus Zonstein, 2001 (Kashksdarya Region, Shakhrisabz: see Zonstein 2001b: 146).

Microphadnus pumilus (Costa, 1886) (Kashksdarya Region: Zonstein 2001b: 145; Uzbekistan: see Loktionov and Lelej 2017: 173).

Genus *Tachyagetes* Haupt, 1930**Subgenus *Tachyagetes* Haupt, 1930**

Tachyagetes (*Tachyagetes*) *aegyptiacus* (Priesner, 1955) (Uzbekistan: see Wolf 2005: 1750).

Tachyagetes (*Tachyagetes*) *aeratus* Priesner, 1955 (Uzbekistan: see Wolf 2005: 1750).

Tachyagetes (*Tachyagetes*) *argentatus* Haupt, 1930 (Uzbekistan: see Loktionov and Lelej 2017: 174).

Tachyagetes (*Tachyagetes*) *aschabadus* Wolf, 1994 (Samarkand Region, Kumak: see Wolf 1994: 909).

Tachyagetes (*Tachyagetes*) *bactrianus* Zonstein, 2000 (Samarkand Region: see Zonstein 2000: 174).

Tachyagetes (*Tachyagetes*) *beersebus* Wolf, 1986 (Khorezm Region, Khiva: see Wolf 1994: 914).

Tachyagetes (*Tachyagetes*) *bytinskii* Haupt, 1962 (Samarkand Region, Kumak: see Wolf 1994: 914).

Tachyagetes (*Tachyagetes*) *excellens* Haupt, 1930.

Material: First record for UZBEKISTAN: “Xorezmskaya obl., Amu-dar’ya, predgor’ya Sultan-Uizdaga, Statia okolepis, 25.V.1941, Chirkun”, “S. Zonstein det., 1996 – *Tachyagetes* sp. aff. *excellens*” – 1♀ (GMPUz).

Tachyagetes (*Tachyagetes*) *filicornis* (Tournier, 1889) (Uzbekistan: see Wolf 2005: 1750; Lelej et al. 2017: 30; Loktionov and Lelej 2017: 174).

Tachyagetes (Tachyagetes) grandis (Tournier, 1889) (= *Aporus (Aporus) ater* Radoszkowski, 1877) (Uzbekistan ("Kisilkum", "Sarafsch. dol.", "Keles", "Tschardara"): see Wolf 1987: 430).

Material: Jizzakh Region: "Pusty`nya, sev. Nuratinskix gor, 20.V".1925, "S. Zonstein det., 1996 – *Tachyagetes grandis* Tournier, ♀" – 1♀; Fergana Valley: "Fergansk. dolina, st. Iessen, na gigantskom molochae, 15.IV.1940, Chirkun", "S. Zonstein det., 1996 – *Tachyagetes grandis* Tourn." – 1♀; "Fergansk. dol., ksh. Laul`gan, ady`ry`, 30.IV.1940, Chirkun", "S. Zonstein det., 1996 – *Tachyagetes grandis* Tournier, ♀" – 2♀ (GMPUz).

Tachyagetes (Tachyagetes) gratiosus (Radoszkowski, 1893) (= *Tachyagetes (Tachyagetes) kasakstanus* Wolf, 1987) (Uzbekistan: see Wolf 1987: 433; Samarkand, Tashkent Regions: see Zonstein 2000: 178; Tashkent Region: see Zonstein and Ovchinnikov 2002: 116; Vashetko and Chebotarev 2007: 170; Uzbekistan: see Loktionov and Lelej 2017: 174).

Tachyagetes (Tachyagetes) kaspiscinus Wolf, 1994 (Samarkand Region, Kumak: see Wolf 1994: 910).

Tachyagetes (Tachyagetes) leucocnemis Haupt, 1930 (Tashkent Region, Chirchik: see Wolf 1998: 347).

Tachyagetes (Tachyagetes) maculipennis Zonstein, 2000 (Jizzakh, Tashkent, Surkhandarya, Kashkadarya Regions: see Zonstein 2000: 173).

Tachyagetes (Tachyagetes) otus Zonstein, 2000 (Fergana Valley, Tashkent Region: see Zonstein 2000: 173–174).

Tachyagetes (Tachyagetes) pseudiberomaculatus Wolf, 1994 (Khiva, Tashkent: see Wolf 1994: 912).

Tachyagetes (Tachyagetes) tsakaspus Wolf, 1994 (Fergana Region, Assake: see Wolf 1994: 913).

Subgenus *Epagetes* Priesner, 1955

Tachyagetes (Epagetes) testaceoides Wolf, 1982 (Bukhara, Surkhandarya Regions: see Zonstein 2000: 171–172).

Tachyagetes (Epagetes) testaceus (Radoszkowski, 1877) (Navoi Region: see Wolf 1982: 185; Navoi: see Zonstein 2000: 171).

Tachyagetes sp. (Surkhandarya Region: see Mokrousov and Zryanin 2015: 40).

Genus *Xenaporus* Ashmead, 1902**Subgenus *Baguenaia* Giner Mari, 1942**

Xenaporus (Baguenaia) vegteri (Wolf, 1981) (Buchara, Chiwa: see Wolf, 1990: 667; sands nr. Yazyavan, Central Ferghana: see Zonstein 2002a: 109).

Subgenus *Xenaporus* Ashmead, 1902

Xenaporus (Xenaporus) eremocanus Wolf, 1990 (Chiva: see Wolf 1990: 646; Zonstein 2002a: 106; Khorezm Region (Khiva), Fergana Region (Yazyavan): see Zonstein, Zonstein 2007: 269, 273; Loktionov and Lelej 2015; 2017: 174).

Xenaporus (Xenaporus) ignoteremus Wolf, 1990 (Uzbekistan: see Zonstein 2002a: 106).

Xenaporus (Xenaporus) karakumus Wolf, 1990 (Buchara: see Zonstein 2002a: 107).

Xenaporus (Xenaporus) krasnovodus Wolf, 1990 (Chiva: see Wolf 1990: 654).

Xenaporus (Xenaporus) krysanovskii Wolf, 1988 (Dzhira-Kuduk: see Zonstein 2002a: 107).

Xenaporus (Xenaporus) lomonosovi Wolf, 1990 (Karschi: see Wolf 1990: 656; Zonstein 2002a: 108).

Xenaporus (Xenaporus) serafschanus Wolf, 1990 (Chiva: see Wolf 1990: 663; Zonstein 2002a: 108).

Xenaporus (Xenaporus) tamerlan S. Zonstein, 2002 (Kashkadaria, near Shakhrisabz: see Zonstein 2002a: 108-109; Kashkadarya (Shakhrisabz): see Zonstein, Zonstein 2007: 269, 282).

Xenaporus (Xenaporus) vulpecula I. Zonstein & S. Zonstein, 2007 (Surkhandarya: see Zonstein, Zonstein 2007: 269, 284).

Tribe Episyronini Haupt, 1950**Genus *Episyron* Schiødte, 1837**

Episyron albonotatum (Vander Linden, 1827) (Uzbekistan: see Wolf 1998: 341; Loktionov and Lelej 2017: 166).

Material: UZBEKISTAN: Fergana Valley: “Fergansk. dol., k. Yaz-Yavan, peski, 8.V.1944, Chirkun”, “Zonstein det., 1996 – *Episyron* sp. aff. *albonotatum*” – 1♀; label discoloured, “2.VIII.47, Tip...”, det. “*Batazonus albonotatus* L.” – 1♀, outdated combination; label discoloured, “19...”, det. “*Batonus* sp.” – 1♀ (the genus definition is incorrect) (GMPUz).

Episyron candiotum Wahis, 1966 (Uzbekistan: see Wolf 1998: 341; Loktionov and Lelej 2017: 167).

Episyron gallicum (Tournier, 1889) (Uzbekistan: see Wolf 1998: 341; Loktionov and Lelej 2017: 167).

Episyron rufipes (Linnaeus, 1758) (Uzbekistan: see Wolf 1998: 341; 2005: 1748; Loktionov and Lelej 2017: 167).

Material: UZBEKISTAN: Tashkent Region: “Ak-tash, 25.V.26, N. Kuznecov”, det. “*Episyron rufipes* L., ♂” – 1♂ (GMPUz).

Genus *Parabatozonus* Yasumatsu, 1936 (= *Batozonellus* Arnold, 1937)

Parabatozonus lacerticida (Pallas, 1771) (= *Batozonellus lacerticida* (Pallas, 1771)) (Uzbekistan: see Wolf 1998: 337; 2005: 1746; Tashkent Region: see Zonstein and Ovchinnikov 2002: 116; Vashetko and Chebotarev 2007: 170; Uzbekistan: see Loktionov and Lelej 2017: 167).

Material: UZBEKISTAN: Khorezm Region: “bereg Amu-dar`i, Sultanuizdag, 25.V.41, Chirkun”, “S. Zonstein det., 1996 – *Batazonellus lacerticida* Pall.” – 2♀, “Xorezmsk. obl., k. Xtaj i okrestnosti, 7.VI.41, Chirkun”, “S. Zonstein det., 1996 – *Batazonellus lacerticida* Pall.” – 1♀; “Xorezmsk. obl., k. Xtaj, 8.VI.41, Chirkun”, “N. Meyer det. – *Batazonus lacerticida* Pass.” – 1♀; Tashkent Region: “Karzhantau, zlakovozontich. step`, III poyasa, 29.VI.37”, det. “*Batazonus lacerticida* Pall., ♂” – 1♂; Ferghana Valley: “Severny`j Alaj, Shaximardan, 14.VIII.1937, Ady`lov”, “N. Meyer det. – *Batasonus lacerticida* Rass.”; “N. Meyer det. – *Batasonus lacerticida* Pall.” – 1♀; “Fergansk. dol., k. Ming-Bulak, S-dar`ya, Tamarisk, 11.V.1940, Chirkun”, “S. Zonstein det., 1996 – *Batazonellus lacerticida* Pall.” – 1♀; “1.V.1909, Xilkova”, “S. Zonstein det., 1996 – *Batazonellus lacerticida* Pall.” – 1♀ (GMPUz).

Tribe Pompilini Latreille, 1805

Genus *Agenioideus* Ashmead, 1902 (= *Ridestus* Banks, 1912)

Subgenus *Agenioideus* Ashmead, 1902

Agenioideus (*Agenioideus*) *sericeus* (Vander Linden, 1827) (Uzbekistan: see Loktionov and Lelej 2017: 167).

Subgenus *Schizanoplius* Cameron, 1904

Agenioideus (*Schizanoplius*) *ciliatus* (Lepeletier, 1845) (= *Ridestus* (*Schizanoplius*) *ciliatus* (Lepeletier, 1845)) (Uzbekistan: see Wolf 1998: 332; 2005: 1742; Tashkent Region: see Zonstein and Ovchinnikov 2002: 116; Vashetko and Chebotarev 2007: 170; Uzbekistan: see Loktionov and Lelej 2017: 167).

Agenioideus (*Schizanoplius*) *dichrous* (Brullé, 1840) (= *Ridestus* (*Schizanoplius*) *dichrous* (Brullé, 1840)) (Uzbekistan: see Wolf 1998: 332; Tashkent Region: see Zonstein and Ovchinnikov 2002: 116; Vashetko and Chebotarev 2007: 170).

Agenioideus (*Schizanoplius*) *excisus* (F. Morawitz, 1890) (= *Ridestus* (*Schizanoplius*) *excisus* (F. Morawitz, 1890)) (Tashkent Region: see Zonstein and Ovchinnikov 2002: 116; Vashetko and Chebotarev 2007: 170).

Material: UZBEKISTAN: “Chp. Micheuli, C.-D., 28.VI.11”, det. “*Psammochares excisus* F. Mor., ♀”; “Zonstein det., 1996 – *Agenioideus* (*Ridestus*) *excisus* F. Mor., ♀” – 1♀; “Amu-Dar`ya, Chugurum, zakr. pusty`nya, 19.VIII.1989”, “Zonstein det., 1996 – *Agenioideus* (*Ridestus*) *excisus* F. Mor., ♀” – 1♀ (GMPUz).

Genus *Aporinellus* Banks, 1911

Subgenus *Aporinellus* Banks, 1911

Aporinellus (*Aporinellus*) *moestus* (Klug, 1834) (Uzbekistan: see Wolf 1998: 334; Tashkent Region: see Zonstein and Ovchinnikov 2002: 116; Vashetko and Chebotarev 2007: 170; Uzbekistan: see Loktionov and Lelej 2017: 168).

Aporinellus (*Aporinellus*) *sexmaculatus* (Spinola, 1805) (Uzbekistan: see Wolf 1998: 334; Tashkent Region: see Zonstein and Ovchinnikov 2002: 116; Vashetko and Chebotarev 2007: 170; Uzbekistan: see Loktionov and Lelej 2017: 168).

Material: UZBEKISTAN: Fergana Valley: “Fergansk. dol., st. Iessen, na gigant-skom molochae, 19.V.1940, Chirkun”, “Zonstein det., 1996 – *Aporinellus sexmaculatus* sp.” – 2♀ (GMPUz).

Genus *Arachnospila* Kincaid, 1900

Subgenus *Ammosphex* Wilcke, 1942

Arachnospila (*Ammosphex*) *consobrina* (Dahlbom, 1843) (Uzbekistan: see Wolf 1998: 335; Loktionov and Lelej 2017: 168-169; Shlyakhtenok et al. 2021: 278).

Arachnospila (Ammosphex) trivialis (Dahlbom, 1843).

Material: First record for UZBEKISTAN: Khorezm Region: “Xorezmsk. obl., k. Gazorat, ozero Shik, 15.V.41, Chirkun”, “Zonstein det., 1996 – *Arachnospila* sp. aff. *trivialis*” – 1♀; “Xorezmsk. obl., k. Xtaj, 8.VI.41, Chirkun”, “Zonstein det., 1996 – *Arachnospila* sp. aff. *trivialis*” – 1♀; Tashkent Region: “Karzhantau, kish. Dzhurt, sneg, 7.VI.1940, Obuxova”, “Zonstein det., 1996 – *Arachnospila* sp. aff. *trivialis*” – 1♀; “Karzhantau, kish. Dzhurt, suxie sklony`, 7.VI.1940, Obuxova”, “Zonstein det., 1996 – *Arachnospila* sp. aff. *trivialis*” – 1♀; “Karzhantau, zont. lugostep`, czvety` F. karatavica, 31.V.1940, Obuxova”, “Zonstein det., 1996 – *Arachnospila* sp. aff. *trivialis*” – 1♀; “Karzhantau, py`rejnaya lugostep`, 26.V.1940, Obuxova”, “Zonstein det., 1996 – *Arachnospila* sp. aff. *trivialis*., ♀” – 1♀; 1♀: “24.VI.19...”, “Zonstein det., 1996 – *Arachnospila* sp. aff. *trivialis*” – 1♀ (GMPUz).

Arachnospila (Ammosphex) sp. 1 (Kashkadarya Region: see Mokrousov and Zryanin 2015: 39).

Arachnospila (Ammosphex) sp. 2 (Kashkadarya Region: see Mokrousov and Zryanin 2015: 39).

Subgenus *Anoplochaes* Banks, 1939

Arachnospila (Anoplochaes) fuscomarginata (Thomson, 1870) (Uzbekistan: see Wolf 1998: 335; 2005: 1744; Loktionov and Lelej 2017: 169; Shlyakhtenok et al. 2021: 278).

Arachnospila (Anoplochaes) spissa (Schiodte, 1837) (Uzbekistan: see Wolf 1998: 335; Loktionov and Lelej 2017: 170; Shlyakhtenok et al. 2021: 281).

Subgenus *Arachnospila* Kincaid, 1900

Arachnospila (Arachnospila) binaeva Haupt, 1930.

Material: First record for UZBEKISTAN: Tashkent Region: “Karzhantau, zlakovo-zontichnaya step`, 29.VI.37”, det. “*Psammochares binaevus* Hpt., ♀” – 1♀, (GMPUz).

Arachnospila (Arachnospila) rufa (Haupt, 1927).

Material: First record for UZBEKISTAN: Tashkent Region: “Karzhantau, subal`pijskij lug, 3.VII.1939, Obuxova”, “Zonstein det., 1996 – *Arachnospila* sp. aff. *rufa*” – 1♀; “Karzhantau, Uluk-Dzhurt, 12.VIII.1939, Obuxova”, “Zonstein det., 1996 – *Arachnospila* sp. aff. *rufa*” – 1♀; “Karzhantau, zont. lugostep`, czvety` F. karatavica, 31.V.1940, Obuxova”, “Zonstein det., 1996 – *Arachnospila* sp. aff. *rufa*” – 1♀ (GMPUz).

Arachnospila (Arachnospila) sogdianoides (Wolf, 1964) (Uzbekistan: see Wolf 1998: 335; Loktionov and Lelej 2014: 272, 2017: 170).

Arachnospila (Arachnospila) vagans (Radoszkowski, 1877) (Samarkand Region (Aman-Kutan): see Zonstein 2002b: 115).

Genus *Dicyrtomellus* Gussakovskij, 1935

Dicyrtomellus kizilkumi (Radoszkowski, 1877) (Uzbekistan: see Radoszkowski 1877b: 19; Navoi Region: see Davletshina et al. 1979: 117).

Material: UZBEKISTAN: Khorezm Region: “Xiva, okrestnosti, peski, 4.V.41, Chirkun”, “S. Zonstein det., 1996 – *Dicyrtomellus kizilkumi* Rad.” – 2♀; “Xivinsk. oasis, peski u oz. Kori, 28.IV.41, Chirkun”, “S. Zonstein det., 1996 – *Dicyrtomellus kizilkumi* Rad., ♂” – 1♂; “Xivinskij oasis, k. Dashak, peski, 30.IV.41, Chirkun”, “S. Zonstein det., 1996 – *Dicyrtomellus kizilkumi* Rad.” – 2♀; “bereg Amudar’i, Sultan-uiz-dag, 25.V.41, Chirkun”, “Zonstein det., 1996 – *Dicyrtomellus* sp.” – 2♀, 1♂; Navoi Region: “Yu. Kizil Kumy’, k S. ot Nurat. xr., 22.V.26, E’ksp”, det. “*Dicyrtomellus kizilkumi* Rad., ♀” – 1♀; “Tamdy’, Kzy’l Kum, bokchi, 12.VI.37, A.”, “S. Zonstein det., 1996 – *Dicyrtomellus kizilkumi* F. Mor., ♀” – 1♀; “okr. pos. Kara-Kul’, pusty’nya Ky’zy’l-Kum, SZ-Uzbekistan, 16 V 1978, G.F. Kolyux”, “S. Zonstein det., 1997 – *Dicyrtomellus kizilkumi* (F. Mor.)” – 1♀; “YuV Ky’zy’lkum, Uzb., ur. Murun-Karak, okr. Kamy’sh-Bulaka, 16 V 1965, G.F. Kolyux”, “S. Zonstein det., 1997 – *Dicyrtomellus kizilkumi* (F. Mor.), ♀” – 3♀; Bukhara Region: “okr. Gazli, Ky’zy’l-Kum, 19.05.1960, Bekuzin”, “S. Zonstein det., 1997 – *Dicyrtomellus kizilkumi* (F. Mor.), ♀” – 1♀; Jizzakh Region: “Pusty’nya sev. Nuratinskix gor, Mangly’ kly’k, 29.V.26”, “Zonstein det., 1996 – *Dicyrtomellus kizilkumi* F. Mor., ♂” – 1♂ (GMPUz).

Dicyrtomellus pseudokyzylkumi Wolf, 1988 (the valley of Zarafshan River: see Wolf 1988a: 223).

Dicyrtomellus tingitanus (Wolf, 1966) (Uzbekistan: see Loktionov and Lelej 2017: 170).

Genus *Evagetes* Lepeletier, 1845

Evagetes pectinipes (Linnaeus, 1758) (Uzbekistan: see Loktionov and Lelej 2009: 391, 2014: 286, 2017: 171; Loktionov 2011: 210; Lelej and Loktionov 2012: 410).

Evagetes siculus contemptus (Tournier, 1890) (Uzbekistan: see Wolf 2005: 1749; Loktionov and Lelej 2017: 171 (as *E. siculus*)).

Genus *Nanoclavelia* Haupt, 1962

Nanoclavelia leucoptera (Dahlbom, 1845) (Tashkent Region: see Wolf 1998: 343).

Genus *Pamirospila* Wolf, 1970

Pamirospila hetaera Zonstein, 2000 (Tashkent Region: see Zonstein 2000: 183).

Genus *Paracyphononyx* Gribodo, 1884

Paracyphononyx pavlovskyi Gussakovskij, 1952.

Material: First record for UZBEKISTAN: Khorezm Region: “Xivinsk. oasis, k. Dashak, peski, 30.IV.41, Chirkun”, “Zonstein det., 1996 – *Paracyphononyx pavlovskyi* Guss., ♂” – 1♂; “Bereg Amu-dar’i, Sultan-Uizdag, 25.V.41, Chirkun”, “S. Zonstein det., 1996 – *Paracyphononyx pavlovskyi* Guss., ♂” – 1♂ (GMPUz).

Genus *Schistonyx* Saussure, 1887

Schistonyx antrax (Dalla Torre, 1897) (Uzbekistan: see Wolf 1998: 346 – = *Pompilus anthracinus* Taschenberg, 1880; = *Schistonyx anthracinus* (F. Morawitz, 1890); junior synonym – *Schistonyx anthrax* (Dalla Torre, 1897).

Material: Khorezm Region: “Bereg Amu-Dar’i, Sultanuizdag, 25.V.41, Chirkun”, “S. Zonstein det., 1996 – *Schistonyx antrax* D.T., ♀” – 1♀; “Xorezmsk. obl., trava u oz. Shik, 15.V.41, Chirkun”, “S. Zonstein det., 1996 – *Schistonyx* sp.” – 1♀ (GMPUz).

Genus *Telostegus* Costa, 1887

Telostegus montanus (Zonstein, 2001) (Uzbekistan: see Zonstein 2001b: 147 – = *Elaphrosyrus montanum* Zonstein, 2001).

Telostegus sabulicola Priesner, 1955 (Uzbekistan: see Wolf 2005: 1752).

Telostegus zonsteini (Wolf, 2001) (Samarkand Region: see Wolf 2001: 971).

Telostegus sp.

Material: UZBEKISTAN: Khorezm Region: “Xorezmsk. obl., Dzhumurtau, 21.V.41, Chirkun”, “Zonstein det., 1996 – *Telostegus* sp.” – 2♀; “Xorezmsk. obl., Sultan-Uizdag, 29.V.41, Chirkun”, “S. Zonstein det., 1996 – *Telostegus* sp., ♀” – 1♀ (GMPUz).

Tribe Psammoderini Arnold, 1937**Genus *Arachnotheutes* Haupt, 1927**

Arachnotheutes rufithorax (Costa, 1882).

Material: First record for UZBEKISTAN: Khorezm Region: “Xorezmsk. obl., Dzhumurtau, 21.V.41, Chirkun”, “Zonstein det., 1996 – *Arachnotheutes rufithorax* Costa, ♂” – 1♂ (GMPUz).

Genus *Eoferreola* Arnold, 1935

Eoferreola distincta (Smith, 1855) (Uzbekistan: see Wahis and Schmid-Egger 2002: 49-52).

Eoferreola manticata (Pallas, 1771) (junior synonym *Eoferreola caucasica* (Radoszkowski, 1888) (Uzbekistan: see Wahis and Schmid-Egger 2002: 56; Loktionov and Lelej 2017: 173).

Material: UZBEKISTAN: Fergana Valley: “Fergansk. dol., st. Iessen, ady`ry`, 19.V.1940, Chirkun”, “Zonstein det., 1996 – *Eoferreola caucasica* Rad., ♀” – 1♀ (GMPUz).

Eoferreola manticata f. *batrachiorum* (Dalla Torre) (Uzbekistan: see Wahis and Schmid-Egger 2002: 62).

Eoferreola nigra (Radoszkowski); Wolf, 1998 (Uzbekistan: see Wolf 1998: 341; Wahis and Schmid-Egger 2002: 56).

Eoferreola rhombica (Christ, 1791) (Uzbekistan: see Wolf 1998: 341; Loktionov and Lelej 2017: 173).

Eoferreola variabilis (Eversmann, 1849) (= *Pompilus variabilis* Eversmann, 1849) (Uzbekistan: see Lelej et al. 2017: 29; Loktionov and Lelej 2017: 173).

Genus *Ferreola* Lepeletier, 1845

Ferreola heladai Schmidt-Egger and Al-Djahdami, 2018 (Fergana Region (Kokand): see Schmidt-Egger and Al-Djahdami 2018: 402).

Conclusion

Based on the analysis of literature on spider wasps (Pompilidae) and the study of specimens from the entomological collection of the State Museum of Nature of Uz-

bekistan, the taxonomic composition of the spider wasps of Uzbekistan has been determined. It includes 132 species, 1 subspecies, and 4 species (sp.) belonging to 23 subgenera, 28 genera, 8 tribes, and 3 subfamilies. Among them, 9 species are recorded for the first time in the fauna of Uzbekistan: *Cryptocheilus* (*Cryptocheilus*) *alternatus caspius* Gussakovskij, 1952; *Priocnemis* (*Priocnemis*) *minuta* (Vander Linden, 1827); *Priocnemis* (*Umbripennis*) *gypsochtona* Gussakovskij, 1930; *Tachyagetes* (*Tachyagetes*) *excellens* (Haupt, 1930); *Arachnospila* (*Ammosphex*) *trivialis* (Dahlbom, 1843); *Arachnospila* (*Arachnospila*) *binaeva* Haupt, 1930; *Arachnospila* (*Arachnospila*) *rufa* (Haupt, 1927); *Paracyphononyx pavlovskyi* Gussakovskij, 1952; *Schistonyx antrax* (Dalla Torre, 1897); *Arachnotheutes rufithorax* (Costa, 1882); *Eoferreola caucasica* (Radoszkowski, 1888).

Acknowledgements

We express our gratitude to A.Zh. Alkarov, curator of the Entomological Collection of the State Museum of Nature of Uzbekistan, for providing the opportunity to work with the collection material. This research was carried out within the framework of the scientific research program of the Institute of Zoology of the Academy of Sciences of the Republic of Uzbekistan for 2025–2029, titled “1.2. Creation of a digital information system of the fauna of Bukhara and Navoi regions”, funded by the state budget.

References

- Davletshina AG, Avanesova GA, Mansurov AK (1979) Entomofauna of the Southwestern Kyzylkum. Fan UzSSR, Tashkent, 117 pp. [In Russian]
- Elliott MG (2007) Annotated catalogue of the Pompilidae (Hymenoptera) of Australia. Zootaxa 1428: 1–83. <https://doi.org/10.11646/zootaxa.1428.1.1>
- Fernández F, Rodríguez J, Waichert C, Decker B, Pitts J (2022) Twenty-two years later: An updated checklist of Neotropical spider wasps (Hymenoptera: Pompilidae). Zootaxa 5116(4): 451–503. <https://doi.org/10.11646/zootaxa.5116.4.1>
- Gussakovskij VV (1926) New and little-known species of Pompilidae (Hymenoptera). Russian Entomological Review 20(3–4): 250–259. [In Russian]
- Gussakovskij VV (1929) New species of the family Psammocharidae (Hymenoptera). I. Russian Entomological Review 23(1–2): 1–10. [In Russian]
- Gussakovskij VV (1930) Review of Palaearctic species of the genus *Priocnemis* Schiødte (Hymenoptera, Psammocharidae). Yearbook of the Zoological Museum of the USSR Academy of Sciences 31(2): 227–290. [In Russian]
- Gussakovskij VV (1931) Revision of the genus *Ceropales* Latr. (Hymenoptera, Psammocharidae). Annals of the Zoological Museum, Academy of Sciences USSR 32: 1–27. [In Russian]

- Gussakovskij VV (1932) Sphecidae and Psammocharidae (Hymenoptera) collected by N. Zarudnyi in Eastern Persia. Proceedings of the Zoological Institute of the USSR Academy of Sciences 1: 269–304. [In Russian]
- Gussakovskij VV (1933) Sphecidae et Psammocharidae (Hymenoptera), a cl. N. Zarudnyi in Persia orientali collectae. Travaux de l'Institut Zoologique de l'Académie des Sciences de l'URSS 1: 369–407. [In Russian]
- Gussakovskij VV (1935) Palaearctic species of Pompiloides (Hymenoptera, Psammocharidae). Konowia 14: 135–150. https://www.zobodat.at/pdf/KON_14_0135-0150.pdf
- Insects of Uzbekistan (1993) Azimov DA, Bekuzin AA, Davletshina AG, Kadyrova MK (Eds) Tashkent, Fan, 340 pp. [In Russian]
- Lelej AS (2000) Family Pompilidae – Spider Wasps. Supplement. In: Lelej AS, Kupyanskaya AN, Nemkov PG, Kholin SK (Eds) Key to the Insects of the Russian Far East. Vol. IV. Neuropteroidea, Mecoptera, Hymenoptera. Part 4. Dalnauka, Vladivostok, 615–624. [In Russian]
- Lelej AS (2005) Spider wasps (Hymenoptera, Pompilidae) of Sakhalin Island. In: Storozhenko SYu (Ed.) Flora and Fauna of Sakhalin Island (Materials of the International Sakhalin Project). Part 2. Dalnauka, Vladivostok, 122–140. [In Russian]
- Lelej AS, Loktionov VM (2012) Superfamily Pompiloidea. Family Pompilidae (Psammocharidae) – Spider Wasps. In: Lelej AS (Ed.) Annotated Catalogue of the Insects of the Russian Far East. Vol. I. Hymenoptera. Dalnauka, Vladivostok, 407–414. [In Russian]
- Lelej AS, Loktionov VM, Mokrousov MV, Savranskaya ZhV (2017) New records of the velvet ants (Hymenoptera: Mutillidae) and spider wasps (Hymenoptera: Pompilidae) from Russia. Proceedings of the Russian Entomological Society 88(2): 27–30. https://doi.org/10.47640/1605-7678_2017_88_2_27
- Loktionov VM (2011) Fauna and geographical distribution of spider wasps (Hymenoptera: Pompilidae) of the Russian Far East. In: Lelej AS (Ed.) Key to the Insects of the Russian Far East. Supplementary Volume. Dalnauka, Vladivostok, 81–92. [In Russian]
- Loktionov VM, Lelej AS (2009) Review of the genus *Evaetes* Lepeletier, 1845 (Hymenoptera, Pompilidae) in the fauna of Russia. Eurasian Entomological Journal 8(4): 387–398. [In Russian]
- Loktionov VM, Lelej AS (2012) New distributional data on the spider wasps (Hymenoptera: Pompilidae) from the Russian Far East. Far Eastern Entomologist 244: 10–12.
- Loktionov VM, Lelej AS (2014) Spider Wasps (Hymenoptera: Pompilidae) of the Russian Far East. Dalnauka, Vladivostok, 472 pp. [In Russian]
- Loktionov VM, Lelej AS (2015) New and little-known species of *Arachnospila* (subgenus *Ammosphex*) (Hymenoptera: Pompilidae) from Russian Far East. Zootaxa 3911(2): 218–230. <http://dx.doi.org/10.11646/zootaxa.3911.2.4>
- Loktionov VM, Lelej AS (2017) Family Pompilidae. In: Belokobylskij SA, Lelej AS (Eds) Annotated Catalogue of the Hymenoptera of Russia. Vol. I. Symphyta and Apocrita: Aculeata, 160–174.
- Móczár L (1978a) New species and some remarks on the genus *Ceropales* Latreille (Hymenoptera: Ceropalidae). Acta Biologica Szeged 24: 115–137.

- Móczár L (1978b) Revision of the genus *Priesnerius* gen. n. and notes on *Bifidoceropales* Priesner (Hymenoptera: Ceropalidae). Acta Zoologica Academiae Scientiarum Hungaricae 24(3–4): 349–362.
- Móczár L (1986) Revision of the genus *Hemiceropales* Priesner, 1969 (Hym.: Ceropalidae). Acta Zoologica Hungarica 32(3–4): 317–342.
- Móczár L (1987) Revision of the maculata and albicincta groups of the genus *Ceropales* Latreille (Hymenoptera: Ceropalidae). Acta Zoologica Hungarica 33: 121–156.
- Móczár L (1989) A revision of helvetica-group of the genus *Ceropales* Latreille (Hym.: Ceropalidae). Beiträge zur Entomologie 39(1): 9–61.
- Mokrousov MV, Zryanin VA (2015) Materials on the early spring wasp-like fauna of Uzbekistan (Hymenoptera: Vespomorpha: Chrysidoidea, Scolioidea, Pompiloidea, Vespoidea, Apoidea [Spheciformes], Formicoidea). Eversmannia 5: 36–48. [In Russian]
- Morawitz F (1891) Über Astrachan'sche Fossoria. Trudy Russkago Entomologicheskago Obshchestva. Horae Societatis Entomologicae Rossicae 25(13): 175–233.
- Radoszkowsky O (1877a) Chrysidiiformis, Mutillidae and Sphegidae. In: Voyage au Turkestan d'A.P. Fedtchenko, Fasc. 14, tome 2, partie 5. Izvestiya Imperatorskogo Obshchestva Lyubiteley Estestvoznaniya, Antropologii i Étnografii pri Imperatorskom Moskovskom Universitete [News of the Imperial Society of Friends of Natural Science, Anthropology and Ethnography at the Imperial Moscow University] 26: 1–87.
- Radoszkowski O (1877b) Semejstvo II. Pompilidae. In: AP Fedtschenko, Putschestye v Turkestan. Izvestiya Imperatorskogo Obshchestva Lyubiteley Estestvoznaniya, Antropologii i Étnografii pri Imperatorskom Moskovskom Universitete [News of the Imperial Society of Friends of Natural Science, Anthropology and Ethnography at the Imperial Moscow University] 26: 11–21.
- Radoszkowski OI (1887) Insecta in itinere cl.N. Przewalskii in Asia centrali. Novissime lecta. Horae Societatis Entomologicae Rossicae 21: 41–52.
- Radoszkowski OI (1888) Révision des armures copulatrices des mâles de la famille Pompilidae. Bulletin de la Société Impériale des Naturalistes de Moscou 3: 462–493.
- Shlyakhtenok AS (2013) Annotated Catalogue of Wasps (Hymenoptera, Apocrita, Aculeata) of Belarus. Belaruskaya Navuka, Minsk, 259 pp. [In Russian]
- Shlyakhtenok AS, Lelej AS, Loktionov VM (2017) Review of the genus *Priocnemis* Schiødte, 1837 (Hymenoptera, Pompilidae) in the fauna of Belarus. Eurasian Entomological Journal 16(1): 25–41. [In Russian]
- Shlyakhtenok AS, Lelej AS, Loktionov VM (2021) Review of the genus *Arachnospila* Kincaid, 1900 (Hymenoptera, Pompilidae) in the fauna of Belarus. Eurasian Entomological Journal 20(5): 272–287. [In Russian]
- Schmid-Egger C, Al-Djahdami A (2018) New species of *Ferreola* Lepeletier, 1845 and *Eoferreola* Arnold, 1935 with key to *Ferreola* species from the Palearctic region (Hymenoptera, Pompilidae). Linzer biologische Beiträge 50(1): 389–412.
- Tobias VI (1978) Superfamily Pompiloidea. In: Medvedev GS (Ed.) Key to the Insects of the European Part of the USSR. Vol. 3: Hymenoptera, Part 1. Nauka, Leningrad, 83–147. [In Russian]

- Vanoye-Eligio M, Gómez-Camal MDC, Martín-Canché BDR, Rosas-Mejía M, Horta-Vega JV, Vanoye-Eligio V (2021) Current knowledge of the family Pompilidae (Hymenoptera: Vespoidea) in Mexico: diversity and geographical distribution. *Zootaxa* 5071(4): 505–536. <https://doi.org/10.11646/zootaxa.5071.4.3>
- Vashetko EV, Chebotarev SO (2007) Preliminary list of invertebrates of the Chatkal State Biosphere Reserve. *Proceedings of the Chatkal Reserve* 5: 132–177. [In Russian]
- Wahis P, Schmid-Egger C (2002) The genus *Eoferreola* Arnold, 1935 in the Palaearctic with description of a new species (Hymenoptera: Pompilidae). *Notes Fauniques de Gembloux* 46: 39–73.
- Waichert C, Rodriguez J, Wasbauer MS, von Dohlen CD, Pitts JP (2015) Molecular phylogeny and systematics of spider wasps (Hymenoptera: Pompilidae): redefining subfamily boundaries and the origin of the family. *Zoological Journal of the Linnean Society* 175: 271–287. <https://doi.org/10.1111/zoj.12272>
- Wolf H (1982) Zur Kenntnis der Gattung *Tachyagetes* Haupt, 1930 (Hymenoptera, Pompilidae). *Entomofauna* 3: 177–205.
- Wolf H (1986) Zur Kenntnis der Gattung *Tachyagetes* Haupt, 1930 (Hymenoptera, Pompilidae). *Entomofauna* 7: 225–250.
- Wolf H (1987) Zur Kenntnis der Gattung *Tachyagetes* Haupt, 1930 (Hymenoptera, Pompilidae). III. *Linzer Biologische Beiträge* 19: 415–459.
- Wolf H (1988a) Zur Kenntnis der Gattung *Tachyagetes* Haupt 1930 (Hymenoptera, Pompilidae). IV. *Linzer biologische Beiträge* 20(2): 779–828.
- Wolf H (1988b) Über einige von Gussakovskij, F. Morawitz und Radoszkowski beschriebene sowie Bemerkungen zu einigen anderen Wegwespen-Arten (Hymenoptera: Pompilidae). *Linzer biologische Beiträge* 20(1): 217–252.
- Wolf H (1990) Zur Kenntnis der Wegwespen-Gattung *Gonaporus* Ashmead 1902 und verwandter Gattungen (Hym., Pompilidae). *Linzer biologische Beiträge* 22(2): 619–716. https://www.zobodat.at/pdf/LBB_0022_2_0619-0716.pdf
- Wolf H (1994) Zur Kenntnis der Gattung *Tachyagetes* Haupt, 1930 (Hymenoptera, Pompilidae). V. *Linzer biologische Beiträge* 26(2): 907–921.
- Wolf H (1998) Wegwespen (Hymenoptera, Pompilidae) des Oberösterreichischen Landesmuseums Linz (Austria) aus Zentralasien. *Linzer biologische Beiträge* 30(1): 331–348.
- Wolf H (2001) Bemerkungen zu einigen Wegwespen-Arten (Hymenoptera, Pompilidae) (VII.) *Linzer Biologische Beiträge* 30(1): 969–976.
- Wolf H (2004) Wegwespen (Hymenoptera, Pompilidae) des Oberösterreichischen Landesmuseums Linz (Austria) aus Zentralasien (II). *Linzer Biologische Beiträge* 36(2): 1139–1152.
- Wolf H (2005) Wegwespen (Hymenoptera, Pompilidae) des Oberösterreichischen Landesmuseums Linz (Austria) aus Zentralasien (II) und Mongolei. *Linzer biologische Beiträge* 37(2): 1737–1763.
- Zonstein SL (2000) New data on Middle Asian representatives of the spider wasp genera *Hemipepsis*, *Dipogon*, *Tachyagetes*, *Pareiocurgus* and *Pamirospila* (Hymenoptera, Pompilidae). *Tethys Entomological Research* 2: 167–186.

- Zonstein SL (2001a) A new species of the spider wasp genus *Elaphrosyron* Haupt, 1930 (Hymenoptera, Pompilidae) from southeastern part of Middle Asia. Tethys Entomological Research 3: 149–150.
- Zonstein SL (2001b) A synopsis of Middle Asian species of the spider wasp genera *Gonaporus* Ashmead, 1902 and *Microphadnus* Cameron, 1904 (Hymenoptera, Pompilidae). Tethys Entomological Research 3: 139–146.
- Zonstein SL (2001c) New and little-known Middle Asian species of the spider wasp genus *Cryptocheilus* Panzer, 1806 (Hymenoptera, Pompilidae). Tethys Entomological Research 3: 131–135.
- Zonstein SL (2002a) On Middle Asian species of the spider wasp genus *Xenaporus* Ashmead, 1902 (Hymenoptera, Pompilidae). Entomological Investigations in Kyrgyzstan 22: 105–114.
- Zonstein SL (2002b) Notes on Middle Asian spider wasps of the genera *Arachnospila* Kincaid, 1900 and *Pamirospila* Wolf, 1970 (Hymenoptera, Pompilidae). Entomological Investigations in Kyrgyzstan 22: 115–118.
- Zonstein SL (2007a) A new species of the spider wasp genus *Claveliocnemis* Wolf, with new data on the distribution and biology of its congeners (Hymenoptera: Pompilidae). Israel Journal of Entomology 37: 205–214.
- Zonstein SL (2007b) New and little-known Mediterranean and Central Asian species of the spider wasp genus *Cryptocheilus* Panzer, 1806 (Hymenoptera: Pompilidae). Israel Journal of Entomology 37: 215–243.
- Zonstein SL, Ovchinnikov SV (2002) Materials on the fauna of velvet ants, digger wasps and spider wasps (Hymenoptera: Mutillidae, Pompilidae, Sphecidae) of the Chatkal Reserve (Uzbekistan). In: Biological Diversity of the Western Tien Shan: State and Prospects. Bishkek, 114–117. [In Russian]
- Zonstein IM, Zonstein SL (2007) A review of the eremocanus species group of the genus *Xenaporus* Ashmead, 1902 (Hymenoptera: Pompilidae). Israel Journal of Entomology 37: 261–285.
- Zonstein I, Wahis R (2015) Revision of the Palaearctic genus *Gonaporus* Ashmead, 1902 of spider wasps (Hymenoptera: Pompilidae). Zootaxa 4018(4): 451–505. <http://dx.doi.org/10.11646/zootaxa.4018.4.1>