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RESEARCH ARTICLE

Check list of hover flies (Diptera, Syrphidae) of west part of Zarafshan mountain ridge

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Abstract

The article, based on materials from the author's collections for 2017–2022 and partly on the collections of the Samarkand State University (Samarkand) and the Samarkand Museum of Local Lore, provides the first data on the distribution of 79 species of syrphids from 3 subfamilies in the Western part of the Zarafshan ridge. Ten species have been recorded for the first time in Uzbekistan: *Chrysotoxum kirghizorum* Peck, 1974, *Eupeodes asiaticus* (Peck, 1972), *Scaeva dignota* (Rondani, 1857), *Syrphus rectus* Osten Sacken, 1875, *Xanthogramma hissarica* Violovitsh, 1975, *Chrysogaster cemiteriorum* (Linnaeus, 1758), *Cheilosia aerea* Dufour, 1848, *Ch. lola* Zimina, 1970, *Ch. stackelbergi* Barkalov & Peck, 1994, and *Volucella bella* Barkalov, 2003. In addition, one genus – *Neocnemodon* Goffe, 1944 recorded for the first time for Uzbekistan.

Keywords

Insects, biodiversity, Diptera, Syrphidae, hover flies, Uzbekistan, Zarafshan ridge, fauna, new records

Introduction

The Zarafshan ridge is located in the Western part of the Pamir-Alai mountain system and stretches from east to west 370 km while gradually decreasing (Alibekov 1982). Despite the rather long history of studying fauna (Fedtschenko 1874), so far, the volume of such work is not large. The works are mainly devoted to the diversity (Khalimov 2023), biology and ecology (Narzullaev 2022) of pests and their

entomophages (Halimov 2020; Khalimov 2020; Zokirova and Khalimov 2022). Special studies on the fauna of hover flies have not been carried out at all. In the literature there is information on their diversity in agrocenoses (Bronstein 1963; Popova 1978) and a description of several species from this territory (Smirnov 1923; Stackelberg 1949, 1952; Barkalov et all 2020). There is some data on their diversity in the book "Invertebrates of the Zeravshan Valley" by R.A. Alimdzhanov and S.G. Bronstein. Based on their own (26 species) and literary data, they provide a list of 41 species of hover flies that should be present in this valley (Alimdzhanov and Bronstein 1956). The presence of about 30 of them in this area is beyond doubt. However, such species as *Lampetia aberrans* Egger, 1860, *Spilomiya manicata* (Rondani, 1865), *Eumerus emarginatus* Loew, 1848, *E. purpureus* Macquart, 1839 are not indicated in other sources, even for Central Asia. The first two species were described from Europe and reach the Caucasus, the third was described from Sicily and distributed around the Mediterranean Sea, and *E. purpureus* from the Canary Islands. The presence of these species in the Zarafshan Valley is very doubtful and may be due to identification errors. We also did not find any literature data on the presence of *Tubifera pendulus* (Linnaeus, 1758) and *Chrysotoxum bicinctum* (Linnaeus, 1758) in this territory. For this reason, the list below will be the first faunal work for the Zarafshan Ridge.

Materials and methods

The article is based on materials collected by the author in the period from 2017 to 2022. The samples were collected on the slopes of the Zarafshan ridge and at different points of the adjacent plains with maximum coverage of various biotopes (Figs 1–2). Insects were collected using a standard entomological net, yellow plates and a malaise trap. In addition, we have processed materials from the collections of the Samarkand State University (SAMSU) and the Samarkand Museum of Local Lore (Samarkand). The author's collections are not listed separately in the text, in all other cases the collector's names are indicated in parentheses. The determination of the material was made by the author and A.V. Barkalov (Institute of Systematic and Ecology of Animals, Novosibirsk). The collection material is kept in the private collection of the author and in the collection of the Institute of Systematics and Ecology of Animals of the Siberian Branch of the Russian Academy of Sciences – ISEA (Novosibirsk). The species first registered for Uzbekistan are highlighted in bold.

The correctness of the determination of flies was confirmed by A.V. Barkalov. The nomenclature and order of taxa is given according to A.V. Barkalov and V.A. Mutin (Barkalov and Mutin 2018), with some changes according to M. Speight (Speight 2016) and the Catalog of the Palearctic Diptera (Peck 1988). The main collection points are given in the list and indicated on the map (Fig. 3). For each species, references are given to the literature where it was indicated for any point in Uzbekistan, since there is only one source for the territory of western Zarafshan. If the species was specified under a different name then it is given in quotation marks. Species whose presence in this territory is doubtful are marked with an asterisk*.

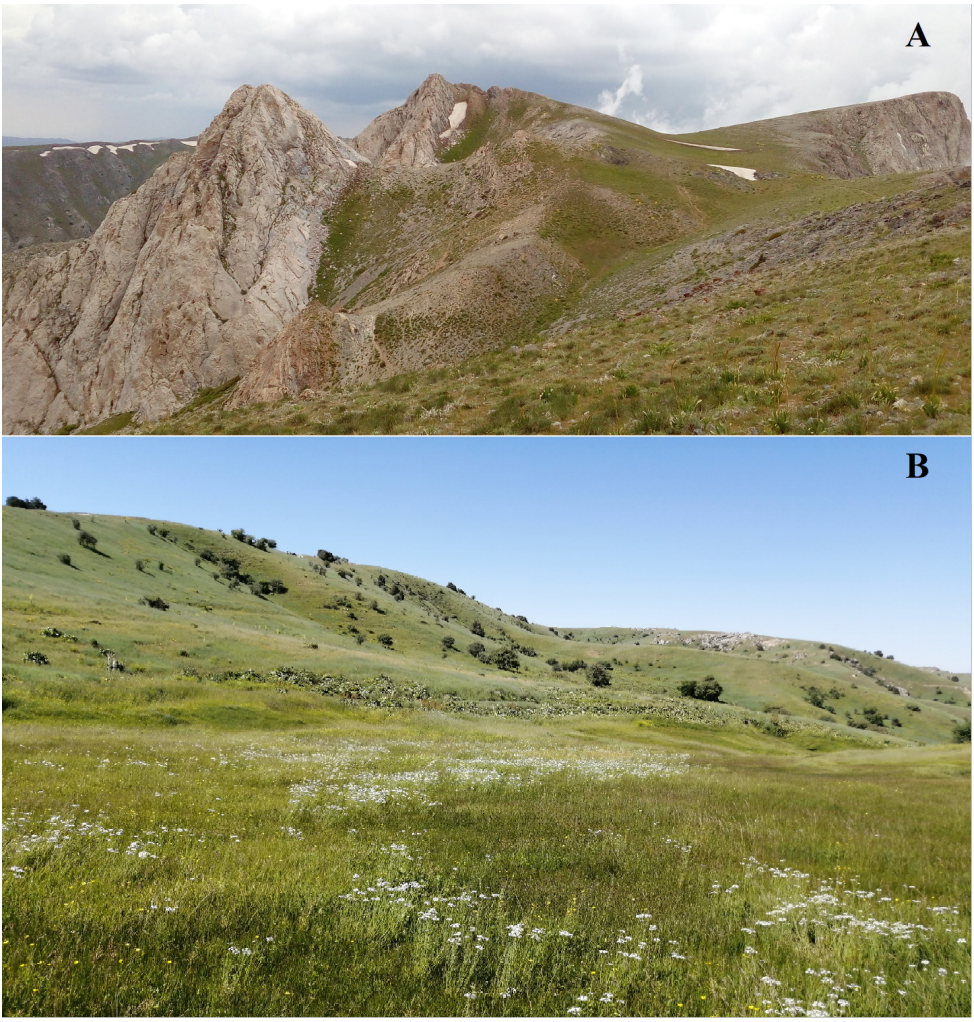

Figure 1. Mountain landscapes in West part of Zarafshan ridge (**A** – subalpine meadows near the Saridukon pass (h=2500 m); **B** – wet meadows of the middle belt of the mountains near the Takhtakoracha pass (h=1900 m).

List of collecting sites (Abbreviations):

1. I – Ingichka city 39°43'1 N 66°01'1 E, h=650 m.
2. O – Nurabad district, Ostonabobo village 39°44'2 N 65°54'8 E, h=720 m.
3. AT – Akdarya tugai forests 39°48'1 N 66°54'1 E, h=630 m.
4. ZP1 – Zarafshan national park, 1–section 39°40'2 N 67°05'3 E, h=750 m.
5. ZP2 – Zarafshan national park, left coast of Zarafshan river 39°37'5 N 67°08'5 E, h=750 m.
6. ZP3 – Zarafshan national park, 3–section 39°37'7 N 67°10'5 E, h=750 m.
7. RD – Zarafshan river, Ravotkhuja dam 39°32'4 N 67°24'4 E, h=870 m.

8. BF – Samarkand, University boulevard 39°38'5 N 66°57'5 E, h=720 m.
9. BG – Botanical garden of Samarkand State university 39°37'2 N 66°54'4 E, h=750 m.
10. UV – Urgut district vineyard 39°26'4 N 67°14'2 E, h=900 m.
11. UC – Urgut city private coutyard 39°02'0 N 67°29'1 E, h=950 m.
12. Z1 – Zarafshan ridge, Aksay village 39°29'2 N 66°37'7 E, h=1200 m.
13. Z2 – Zarafshan ridge, Tepakul village, Kaptarxansay river 39°28'1 N 66°45'1 E, h=1700 m.
14. Z3 – Zarafshan ridge, Kemkutan mountain, Agalyk village 39°27'5 N 66°51'2 E, h=1550 m.
15. Z4 – Zarafshan ridge, Yetti uyli river 39°26'7 N 66°59'2 E, h=1050 m.
16. Z5 – Zarafshan ridge, Amankutan village, Bulbulzorsay river 39°18'3 N 66°57'4 E, h=1460 m.
17. Z6 – Zarafshan ridge, Amankutan village, Yulsay river 39°17'9 N 66°56'9 E, h=1700 m.
18. Z7 – Zarafshan ridge, Takhtakoracha pass 39°18'2 N 66°53'3 E, h=1800 m.
19. Z8 – Zarafshan ridge, Kamongaron 39°22'5 N 67°11'6 E, h=1550 m.
20. Z9 – Zarafshan ridge, Saridukan pass and gorge Zarangzorsoy, 8 km S from the Urgut city 39°19 N, 67°11 E, h=2200–2600 m.
21. Z10 – Zarafshan ridge, Urgutsay 39°21'5 N 67°13'5 E, h=1250 m.
22. Z11 – Zarafshan ridge, Right tributary of the river Urgutsay 39°20'4 N 67°14'2 E, h=1550 m.
23. Z12 – Zarafshan ridge, Saridukan pass 39°19'7 N 67°13'2 E, h=2300 m.
24. Z13 – Zarafshan ridge, Saridukan pass to Saygus 39°19'5 N 67°15'1 E, h=2400 m.
25. Z14 – Zarafshan ridge, Saridukan pass 39°19'2 N 67°15'0 E, h=2520 m.
26. Z15 – Zarafshan ridge, Qumbelsay village 39°20'4 N 67°19'4 E, h=1400 m.
27. YT – Chirokchi district, Yetti tomli village 39°12'5 N 66°15'0 E, h=480 m.
28. ChR – Kashkadarya region, Chimkurgan reservoir 38°59'1 N 66°27'0 E, h=490 m.

Figure 2. Plain landscapes adjacent West part of Zarafshan ridge (**A** – Tugai forests in Zarafshan national park (h=700 m); **B** – Kyzylkum desert (h=300 m).

29. KK – Kitab district, Kaynar village 39°14'0 N 66°54'1 E, h=870 m.
30. KB – Kitab district, Bashyr village 39°16'1 N 67°06'9 E, h=1100 m.
31. KG – Kitab geological reserve 39°11'4 N 67°17'5 E, h=1700 m.
32. PS – Tajikistan. Panjakent city, 39°30'2 N 67°36'3 E, h=960 m.
33. HL – Tajikistan, Sogd region, Khazorchashma lake, 39°5'47.1 N 67°51'1 E, h=2430 m.

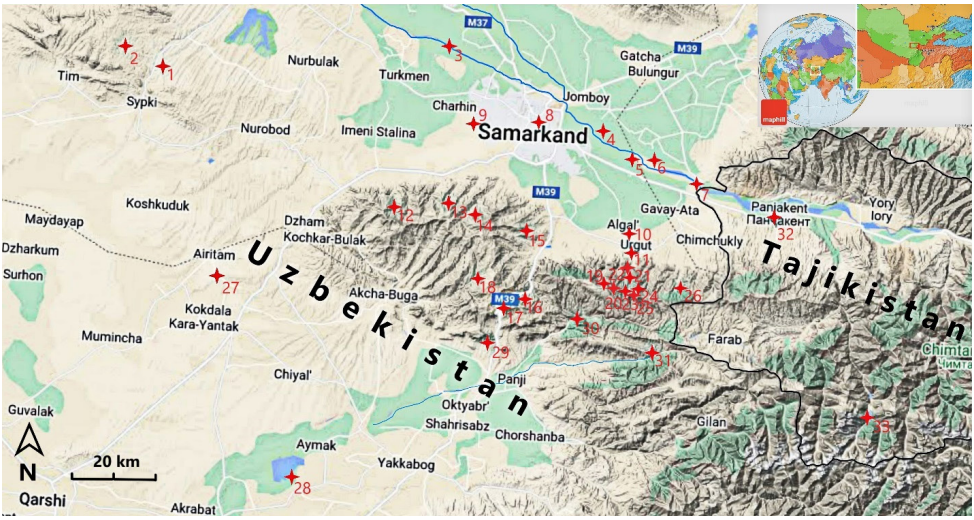

Figure 3. Collection points.

Result

Check list of hover flies (Diptera, Syrphidae) of Western Zarafshan mountain ridge

Subfamily Syrphinae Leach, 1815

Tribus Paragini Glumac, 1961

Genus *Paragus* Latreille, 1804

1. Paragus abrogans Goeldlin, 1971

Peck, 1988: 78 (*Paragus albipes* Gimmerthal, 1842); Daminova 1992: 19 (*Paragus albipes* Gimmerthal, 1842).

Material: UV – 2 females, 12 – 21.07.2020; Z2 – 2 males, 28.05.2020; Z7 – 1 male, 2 females, 13.06.2020; Z14 – 1 male, 04.07.2020.

2. Paragus albifrons (Fallén, 1817)

Daminova 1992: 19.

Material: Z5 – 1 male, 2 females, 14.06.2020.

3. Paragus bicolor (Fabricius, 1794)

Alimdzhanov, Bronstein, 1956: 324; Daminova, 1992: 19; 1997: 32.

Material: UV – 1 male, 2 females, 10.10.2019; 7 males, 4 females, 01.05.2020; 1 male, 21.07.2020; Z1 – 1 female, 06.05.2020; Z4 – 4 males, 3 females, 5 – 12.05.2016; 5 males, 5 females, 13 – 23.06.2017; 7 males, 11 females, 12 – 18.05.2018; 6 males, 6 females, 17 – 24.05.2019; 3 males, 3 females, 07.05.2020; Z5 – 2 females, 13–14.06.2020; 1 male, 02.06.2022; Z6 – 2 males, 12.05.2021; 1 male, 30.05.2021; Z7 – 1 male, 13.06.2020; Z8 – 8 males, 5 females, 14.04.2019; 2 males, 20.05.2020; Z14 – 1 male, 04.07.2020.

4. Paragus compeditus Wiedemann, 1830

Daminova, 1987: 29; 1992: 19; 1997: 17.

Material: ZP2 – 2 males, 1 female, 14.04.2020; JE – 2 females, 12.05.2021.

5. Paragus haemorrhous Meigen, 1822

Daminova 1987: 29; 1992: 19; 1997: 31 (*Paragus haemorrhoidalis*).

Material: ZP2 – 3 males, 2 females, 14.04.2020; UV – 3 males, 1 female, 10.10.2019; 1 male, 1 female, 16.04.2020; 1 male, 1 female, 01.05.2020; 1 female, 02.06.2020; 2 males, 1 female, 21.07.2020; Z2 – 1 male, 4 females, 28.05.2020; Z4 – 6 males, 10 females, 5 – 12.05.2016; 9 males, 12 females, 13 – 23.06.2017; 17 males, 11 females, 12 – 18.05.2018; 6 males, 9 females, 17 – 24.05.2019; 1 female, 07.05.2020; Z5 – 3 males, 02.06.2022; Z6 – 2 males, 30.05.2021; Z7 –15 males, 11 females, 13.06.2020; Z14 – 1 male, 24.05.2021; Z13 – 1 female, 22.09.2020.

6. Paragus tibialis (Fallén, 1871)

Vakhidov, 1974: 27; Davletshina 1974: 87; Daminova 1992: 19; 1997:31.

Material: IS – 4 males, 4 females, 03.05.2019; O – 5 males, 1 female, 09.05.2019; UV – 1 male, 23.03.2020; 1 male, 16.04.2020; 1 male, 01.05.2020; 1 male, 21.07.2020; Z3 – 1 male, 14.06.2022; 9 males, 11 females, 02.05.2019; Z5 – 1 female, 14.06.2020; 4 males, 02.06.2022; Z8 – 3 males, 2 females, 14.04.2019; 1 male, 20.05.2020; Z12 – 1 female, 04.07.2020.

7. Paragus quadrifasciatus Meigen, 1822

Daminova, 1987: 29; 1992: 19; Peck, 1988: 82.

Material: UV – 1 male, 10.10.2019; 1 male, 01.05.2020; 1 male, 21.07.2020; Z4 – 1 female, 07.05.2020; Z7 – 1 male, 13.06.2020.

Tribus Bacchini Bigot, 1883

Genus *Melanostoma* Schiner, 1860

8. Melanostoma mellinum Linnaeus, 1758

Alimdzhanov, Bronstein, 1956: 324; Daminova, 1997: 31; 2011: 142.

Material: ZP3 – 1 male, 14.03.2020; UV – 3 males, 20 females, 29.03 – 01.05.2020; 1 female, 02.06.2020; 2 males, 21.07.2020; 1 female, 11.04.2021; Z1 – 2 females, 06.05.2020; 1 male, 13.06.2020; Z2 – 2 males, 2 females, 28.05.2020; Z4 – 3 males, 2 females, 5 – 12.05.2016; 8 males, 6 females, 13 – 23.06.2017; 5 males, 1 female, 12 – 18.05.2018; 6 males, 8 females, 17 – 24.05.2019; Z5 – 1 female, 14.06.2020; Z7 – 4 females, 13.06.2020.

Genus *Platycheirus* Le Peletier et Serville, 1828

9. Platycheirus ambiguus Fallén, 1817

Daminova, 1992: 19; 1997: 31; 2011: 142.

Material: ZP3 – 4 males, 2 females, 22.03.2021.

Genus *Rohdendorfia* Smirnov, 1924

10. Rohdendorfia dimorpha Smirnov, 1924

Alimdzhanov, Bronstein, 1956: 324; Daminova, 1997: 31.

Remarks. We didn't found specimens of this species in SAMSU.

Tribus Syrphini Samouelle, 1819

Genus *Chrysotoxum* Meigen, 1803

11. Chrysotoxum bactrianum Violovitsh, 1973

Violovitsh, 1973: 601; Daminova, 1992: 19; 2011: 142.

Material: IS – 1 male, 03.05.2019; AT – 1 female, 07.04.2019; ZP1 – 1 male, 2 females, 13.04.2019; ZP2 – 1 male, 1 female, 14.04.2020; ZP3 – 1 male, 26.04.2019; 2 females, 22.03.2021; UV – 1 male, 4 females, 06.08.2019; 11 males, 9 females,

10.11.2019; 42 males, 39 females, 29.03 – 04.05.2020; 3 males, 3 females, 21.07.2020; 1 male, 2 females, 09.08.2020; 14 males, 11 females, 03.03.2021; 9 males, 2 females, 24.08.2022; Z4 – 1 male, 4 females, 5 – 12.05.2016; 2 males, 4 females, 13 – 23.06.2017; 3 males, 1 female, 12 – 18.05.2018; 4 males, 4 females, 17 – 24.05.2019; Z11 – 10 males, 14 females, 20.04.2020; ChR – 1 male, 1 female, 10.04.2021.

12. Chrysotoxum bicinctum (Linnaeus, 1758)*

Alimdzhanov, Bronstein, 1956: 324.

Remarks. We have not found any specimens of this species in SAMSU. We also found no other literature data on the presence of this species in Uzbekistan.

13. Chrysotoxum festivum (Linnaeus, 1758)

Alimdzhanov, Bronstein, 1956: 324; Daminova 1987: 29; 1992: 20.

Material: ZP2 – 1 male, 6 females, 14.04.2021.

14. Chrysotoxum intermedium Meigen, 1822

Alimdzhanov, Bronstein, 1956: 324; Daminova, 1992: 20; 2011: 142.

Material: ZP3 – 2 males, 2 females, 22.03.2021.

15. Chrysotoxum kirghizorum Peck, 1974

Material: ZP3 – 4 females, 26.04.2019; 2 males, 2 females, 22.03.2021; UV – 2 males, 3 females, 06.08.2019; 7 males, 9 females, 10.11.2019; 4 males, 3 females, 29.03 – 04.05.2020; 4 males, 9 females, 21.07.2020; 1 male, 2 females, 24.08.2022; 1 male, 3 females, 03.03.2021; Z11 – 6 males, 8 females, 20.04.2020.

16. Chrysotoxum kozhevnikovi Smirnov, 1925

Alimdzhanov, Bronstein, 1956: 324.

Remarks. We didn't found specimens of this species in SAMSU.

17. Chrysotoxum stackelbergi Violovitsh, 1953

Alimdzhanov, Bronstein, 1956: 324.

Remarks. We didn't found specimens of this species in SAMSU.

18. Chrysotoxum vernale Loew, 1841

Daminova, 2011: 142.

Material: ZP2 – 6 males, 4 females, 14.04.2020; Z7 – 1 male, 5 females, 13.06.2020.

Genus *Episyrphus* Matsumura et Adachi, 1917

19. Episyrphus balteatus (De Geer, 1776)

Vakhidov, 1974: 27 (*Syrphus balteatus* De Geer 1776); Daminova, 1987: 29; 2011: 142.

Material: IS – 2 females, 03.05.2019; O – 1 male, 1 female, 09.05.2019; AT – 7 males, 2 females, 07.04.2019; ZP1 – 2 males, 13.04.2019; 3 males, 2 females, 11.05.2019; ZP3 – 2 females, 26.04.2019; 1 male, 1 female, 07.05.2019; ZP2 – 1 female, 14.04.2020; RD – 2 males, 5 females, 01.03.2020; BF – 1 female, 09.03.2021; UV – 2 males, 2 females, 06.08.2019; 5 males, 9 females, 10.11.2019; 1 male, 1 female, 11.04.2020; 4 males, 1 female, 12.07.2020; 3 females, 24.08.2022; UC – 1 male, 26.05.2019; Z1 – 1 male, 1 female, 06.05.2020; Z2 – 3 males, 6 females, 28.05.2020; Z3 – 1 female, 30.04.2019; Z4 – 4 males, 5 females, 5 – 12.05.2016; 11 males, 9 females, 13 – 23.06.2017; 5 males, 4 females, 12 – 18.05.2018; 1 male, 5 females, 17 – 24.05.2019 6 males, 6 females, 07.05.2020; Z5 – 5 males, 1 female, 14.06.2020; Z7 – 2 males, 1 female, 22.05.2019; 6 males, 1 female, 13.06.2020; Z8 – 4 males, 1 female, 14.04.2019; 5 males, 7 females, 20.05.2020; KK – 1 male, 1 female, 16.03.2019; YT – 1 male, 02.04.2019; 2 males, 16.03.2020.

Genus *Eupeodes* Osten Sacken, 1877

***20. Eupeodes asiaticus* (Peck, 1972)**

Material: ZP2 – 1 male, 14.04.2020; Z10 – 1 male, 26.04.2021.

21. Eupeodes corollae (Fabricius, 1794)

Yakhontov 1929: 32 (*Syrphus corollae* (Fabricius, 1794); Alimdzhanov, Bronstein, 1956: 324 (*Syrphus corollae* (Fabricius, 1794); Saidov 1965: 116 (*Syrphus corollae* (Fabricius, 1794); Davletshina 1974: 87 (*Syrphus corollae* (Fabricius, 1794); Daminova, 1997: 32 (*Metasyphus corollae* (Fabricius, 1794); 2011: 142 *Metasyphus corollae* (Fabricius, 1794).

Material: IS – 10 males, 2 females, 03.05.2019; O – 1 male, 6 females, 09.05.2019; AT – 7 males, 2 females, 07.04.2019; ZP1 – 2 males, 13.04.2019; 3 males, 2 females, 11.05.2019; ZP2 – 8 females, 14.04.2020; ZP3 – 2 females, 26.04.2019; 1 male, 1 female, 07.05.2019; RD – 2 males, 01.03.2020; BG – 4 males, 17.03.2019; BF – 4 males, 1 female, 09.02.2021; UV – 2 males, 2 females, 06.08.2019; 10 males, 1 female, 10.11.2019; 8 males, 9 females, 11.04.2020; 1 male, 7 females, 12.07.2020; UC – 7 males, 10 females, 26.05.2019; Z1 – 1 male, 1 female, 06.05.2020; 1 male, 2 females, 09.08.2020; 7 females, 12.08.2021; 1 male, 2 females, 24.08.2022; Z2 – 5 males, 1 female, 28.05.2020; Z3 – 1 female, 30.04.2019; 7 males, 11 females, 02.05.2019; Z4 – 8 males, 4 females, 5 – 12.05.2016; 14 males, 6 females, 13 – 23.06.2017; 7 males,

7 females, 12 – 18.05.2018; 17 males, 33 females, 17 – 24.05.2019; 5 males, 2 females, 07.05.2020; Z5 – 11 males, 12 females, 13–14.06.2020; 4 males, 6 females, 30.05.2021; 3 males, 9 females, 02.06.2022; Z6 – 2 males, 13 females, 12.05.2021; 17 males, 8 females, 30.05.2021; Z7 – 4 males, 1 female, 22.05.2019; 7 males, 7 females, 30.06.2019; 6 males, 1 female, 13.06.2020; 13 males, 7 females, 17.04.2022; Z8 – 6 males, 12 females, 14.04.2019; 5 males, 7 females, 20.05.2020; Z9 – 5 males, 1 female, 05.06.2022; Z10 – 4 males, 7 females, 26.04.2021; Z11 – 4 males, 6 females, 20.04.2020; Z12 – 5 males, 11 females, 02.06.2019; Z13 – 1 female, 22.09.2020; KK – 5 males, 6 females, 16.03.2019; KB – 6 males, 4 females, 22.05.2019; YT – 1 male, 02.04.2019; 8 males, 16.03.2020; ChR – 1 male, 1 female, 10.04.2021; HL – 1 female, 12.06.2019.

22. Eupeodes latifasciatus (Macquart, 1829)

Alimdzhanov, Bronstein, 1956: 324 (*Syrphus latifasciatus* Macquart, 1829); Daminova, 2011: 142 (*Metasyphus latifasciatus* Macquart, 1829); 2014: 32 (*Metasyphus latifasciatus* Macquart, 1829).
Material: KG – 1 female, 02.06.2018.

23. Eupeodes luniger Meigen, 1822

Daminova 1987: 29 (*Metasyphus luniger* Meigen, 1822); 2014: 32 (*Metasyphus luniger* Meigen, 1822).
Material: UC – 1 female, 26.05.2019.

24. Eupeodes nuba (Wiedemann, 1830)

Syrphus interrumpens Walk – Davletshina 1974: 87; *Metasyphus nuba* (Wiedemann, 1830) – Daminova, 1997: 32; 2011: 142.
Material: UV – 1 male, 21.07.2020; Z5 – 5 males, 1 female, 30.05.2021.

Genus *Ischiodon* Sack, 1913

=*Simosyrphus* Bigot, 1882

25. Ischiodon scutellaris (Fabricius, 1805)

Alimdzhanov, Bronstein, 1956: 324; Vakhidov, 1974: 27; Davletshina 1974: 87; Daminova 1997: 32.
Material: Kushrabad district 40°27'5 N 66°04'5 E– 1 male, 27.05.2018; IS – 5 males, 2 females, 03.05.2019; O – 4 males, 3 females, 09.05.2019; UV – 4 males, 12.07.2020; Z2 – 1 male, 28.05.2020; Z4 – 1 male, 14.06.2022; Z5 – 1 female, 03.06.2022; Z8 – 4 males, 1 female, 20.05.2020.

Genus *Scaeva* Fabricius, 1805

26. Scaeva albomaculata (Macquart, 1842)

Alimdzhanov, Bronstein, 1956: 324; 32 (*Lasiophthicus albomaculata* (Macquart, 1842); Saidov 1965: 116; Vakhidov, 1974: 27; Davletshina 1974: 87; Daminova, 1997:32; 2011: 142.

Material: IS – 1 male, 03.05.2019; O – 6 males, 2 females, 09.05.2019; ZP3 – 7 males, 2 females, 26.04.2019; Z2 – 1 male, 28.05.2020; Z3 – 1 female, 30.04.2019; Z4 – 1 male, 1 female, 5 – 12.05.2016; 2 males, 2 females, 13 – 23.06.2017; 1 male, 2 females, 12 – 18.05.2018; 1 male, 2 females, 17 – 24.05.2019; 1 male, 07.05.2020; Z5 – 11 males, 5 females, 30.05.2021; 1 male, 02.06.2022; Z6 – 1 female, 12.05.2021; Z7 – 3 males, 1 female, 17.04.2022; Z8 – 1 male, 1 female, 14.04.2019; 1 male, 7 females, 20.05.2020; Z9 – 2 males, 2 females, 05.06.2022; Z12 – 6 males, 3 females, 02.06.2019; 1 male, 2 females, 24.05.2021.

***27. Scaeva dignota* (Rondani, 1857)**

Material: UV – 3 males, 1 female, 06.08.2019; Z5 – 1 female, 02.06.2022; Z7 – 4 males, 2 females, 12.04.2019; 4 males, 17.04.2022; Z8 – 2 males, 1 female, 20.05.2020; Z9 – 1 male, 05.06.2022.

28. Scaeva latimaculata (Brunetti, 1923)

Daminova 1987: 29; 1997: 32; 2011: 143.

Material: Z2 – 3 males, 4 females, 28.05.2020; Z4 – 1 female, 5 – 12.05.2016; 1 male, 2 females, 13 – 23.06.2017; 2 males, 2 females, 12 – 18.05.2018; 2 males, 1 female, 17 – 24.05.2019; 5 males, 1 female, 07.05.2020; Z5 – 1 male, 02.06.2022; Z7 – 3 females, 13.06.2020; Z8 – 1 male, 2 females, 14.04.2019; 1 male, 6 females, 20.05.2020; Z9 – 1 male, 1 female, 05.06.2022; Z12 – 1 male, 3 females, 24.05.2021.

29. Scaeva pyrastri (Linnaeus, 1758)

Alimdzhanov, Bronstein, 1956: 324 (*Syrphus pyrastri* (Linnaeus, 1758); Vakhidov, 1974: 27; Davletshina 1974: 87; Daminova 1997: 32; 2011: 143.

Material: ZP3 – 2 females, 26.04.2019; UV – 5 males, 16.04.2020; Z3 – 1 female, 04.05.2019; Z4 – 1 male, 5 – 12.05.2016; 4 males, 2 females, 13 – 23.06.2017; 4 males, 3 females, 12 – 18.05.2018; 3 males, 1 female, 17 – 24.05.2019; Z7 – 6 males, 22.05.2019; 1 female, 17.04.2022; Z9 – 1 female, 05.06.2022; Z12 – 1 male, 02.06.2019; 1 male, 1 female, 24.05.2021.

30. Scaeva selenitica (Meigen, 1822)

Daminova, 1992: 21.

Material: RD – 2 females, 01.03.2020; BF – 1 female, 09.02.2021.

Genus *Spaerophoria* Le Peletier et Serville, 1828

31. Sphaerophoria menthastri (Linnaeus, 1758)

Alimdzhanov, Bronstein, 1956: 324.

Remarks. We didn't found specimens of this species in SAMSU.

32. Sphaerophoria philanthus Meigen, 1822

Daminova 1992: 22.

Material: Z4 – 1 male, 07.05.2020; Z7 – 3 males, 13.06.2020; Z8 – 2 males, 20.05.2020; UV – 1 male, 12.07.2020.

33. Sphaerophoria rueppellii (Wiedemann, 1830)

Alimdzhanov, Bronstein, 1956: 324; Daminova 1997: 32.

Material: IS – 5 males, 1 female, 03.05.2019; O – 1 male, 4 females, 09.05.2019; ZP3 – 7 males, 4 females, 26.04.2019; 1 male, 1 female, 22.03.2021; ZP2 – 1 female, 14.04.2020; UV – 7 males, 1 female, 12.07.2020; Z2 – 2 males, 3 females, 28.05.2020; Z3 – 1 male, 1 female, 30.04.2019; Z4 – 1 male, 1 female, 5 – 12.05.2016; 2 males, 2 females, 13 – 23.06.2017; 8 males, 1 female, 12 – 18.05.2018; 4 males, 4 females, 17 – 24.05.2019; 1 male, 07.05.2020; Z5 – 1 female, 14.06.2021; Z12 – 5 males, 6 females, 02.06.2019; KB – 8 males, 9 females, 22.05.2019; YT – 1 male, 5 females, 16.03.2020; PS – 1 male, 12.06.2019.

34. Spaerophoria scripta (Linnaeus, 1758)

Yakhontov 1929: 32; Alimdzhanov, Bronstein, 1956: 324; Saidov 1965: 116; Vakhidov, 1974: 27; Davletshina 1974: 87; Peck, 1988: 45.

Material: IS – 10 males, 7 females, 03.05.2019; O – 7 males, 11 females, 09.05.2019; AT – 11 males, 4 females, 07.04.2019; ZP1 – 4 males, 13.04.2019; 4 males, 8 females, 11.05.2019; ZP3 – 2 females, 26.04.2019; 1 male, 1 female, 07.05.2019; ZP2 – 9 females, 14.04.2020; RD – 5 males, 01.03.2020; BG – 5 males, 7 females, 17.03.2019; BF – 3 males, 1 female, 09.02.2021; UV – 7 males, 6 females, 06.08.2019; 11 males, 17 females, 10.11.2019; 8 males, 9 females, 11.04.2020; 1 male, 7 females, 12.07.2020; 14 males, 9 females, 13.04.2021; 11 males, 19 females, 28.05.2021; 5 females, 12.08.2021; 5 males, 5 females, 15.08.2021; 4 males, 3 females, 24.08.2022; UC – 4 males, 6 females, 26.05.2019; 11 males, 16 females, 11 – 28.06.2019; 19

males, 14 females, 01.04 – 03.09.2020; Z1 – 1 male, 1 female, 06.05.2020; Z2 – 5 males, 1 female, 28.05.2020; Z3 – 1 male, 2 females, 30.04.2019; 1 male, 14.06.2022; Z4 – 6 males, 8 females, 20.05.2019; 5 males, 2 females, 07.05.2020; Z5 – 1 male, 02.06.2022; Z7 – 4 males, 1 female, 22.05.2019; 6 males, 1 female, 13.06.2020; Z8 – 3 males, 2 females, 14.04.2019; 5 males, 7 females, 20.05.2020; Z9 – 1 female, 05.06.2022; Z12 – 7 males, 13 females, 02.06.2019; Z13 – 1 female, 22.09.2020; KK – 5 males, 14 females, 16.03.2019; KB – 15 males, 11 females, 22.05.2019; YT – 1 male, 3 females, 02.04.2019; 8 males, 16.03.2020; ChR – 1 male, 1 female, 10.04.2021; HL – 2 males, 2 females, 12.06.2019.

Genus *Syrphus* Fabricius 1775

35. Syrphus ribesii (Linnaeus, 1758)

Alimdzhanov, Bronstein, 1956: 324.

Remarks. We didn't found specimens of this species in SAMSU.

***36. Syrphus rectus* Osten Sacken, 1875**

Material: ZP3 – 1 male, 26.04.2019; 1 female, 22.03.2021; ZP2 – 2 males, 2 females, 14.04.2020; UV – 1 female, 01.05.2020; Z1 – 1 female, 06.05.2020; Z2 – 1 female, 28.05.2020; Z5 – 1 female, 30.05.2021; Z8 – 2 males, 2 females, 14.04.2019; 2 females, 20.05.2020; Z11 – 1 female, 20.04.2020; YT – 5 females, 16.03.2020.

37. Syrphus vitripennis Meigen, 1822

Vakhidov, 1974: 27; Davletshina, 1974: 87; Daminova, 1997:32; 2011: 142.

Material: ZP1 – 2 females, 13.04.2019; ZP3 – 3 males, 22.03.2021; ZP2 – 2 males, 1 female, 14.04.2020; BF – 1 female, 09.02.2021; UV – 1 female, 06.08.2019; 7 males, 29.03.2020; 1 male, 11.04.2021; 1 female, 04.05.2020; 1 female, 15.08.2021; Z1 – 4 males, 06.05.2020; Z2 – 5 males, 1 female, 28.05.2020; Z4 – 2 males, 1 female, 5 – 12.05.2016; 3 males, 5 females, 13 – 23.06.2017; 4 males, 2 females, 12 – 18.05.2018; 3 males, 2 females, 17 – 24.05.2019; 2 males, 2 females, 07.05.2020; Z5 – 2 males, 30.05.2021; 2 females, 14.06.2020; 4 males, 1 female, 02.06.2022; Z8 – 8 males, 3 females, 14.04.2019; 1 male, 1 female, 20.05.2020; Z9 – 3 males, 1 female, 09.05.2022; PS – 1 female, 12.06.2019.

Genus *Xanthogramma* Schiner, 1860

38. Xanthogramma citrofasciatum Deg.

Daminova 1987: 29; 1992: 21.

Material: ZP1 – 1 male, 1 female, 09.04.2018.

***39. Xanthogramma hissarica* Violovitsh, 1975**

Material: Z9 – 1 female, 09.05.2022; Z12 – 2 males, 1 female, 02.06.2019; 1 male, 1 female, 24.05.2021.

40. Xanthogramma kirgisistanum Enderlein, 1938

Peck, 1988: 51; Daminova, 1992: 21.

Material: ZP1 – 1 female, 10.05.2017; 2 males, 13.04.2019.

Subfamily Pipizinae Rondani, 1856

Tribus Pipizini Williston, 1885

Genus *Neocnemodon* Goffe, 1944

***41. Neocnemodon* sp.**

Material: Z5 – 1 male, 1 female, 13–14.06.2020.

Genus *Pipizella* Rondani, 1856

42. Pipizella mesasiatica Stackelberg, 1952

Daminova, 1992: 21; 1997: 36.

Material: Z1 – 2 males, 06.05.2020; Z4 – 1 male, 10 females, 5 – 12.05.2016; 13 males, 9 females, 13 – 23.06.2017; 11 males, 6 females, 12 – 18.05.2018; 3 males, 8 females, 17 – 24.05.2019; 7 males, 07.06.2020; Z6 – 1 male, 12.05.2021; Z7 – 3 males, 13.05.2021; 11 males, 5 females, 17.04.2022; Z8 – 19 males, 13 females, 14.04.2019; 2 females, 20.05.2020; Z9 – 1 female, 05.06.2022; Z13 – 7 males, 22.09.2020.

Subfamily Eristalinae Rondani, 1857

Tribus Brachiopini Williston, 1885

Genus *Chrysogaster* Meigen, 1803

***43. Chrysogaster cemiteriorum* (Linnaeus, 1758)**

Material: Z5 – 5 males, 9 females, 13.06.2020; Z6 – 5 males, 4 females, 30.06.2020.

44. Chrysogaster kirgisorum Stackelberg, 1952

Daminova, 1992: 22.

Material: KG – 2 females, 02.06.2018.

45. Chrysogaster musatovi Stackelberg, 1952

Daminova, 1992: 22; 1997: 33; 2011: 143.
Material: Z7 – 1 male, 19.05.2018; 3 males, 2 females, 30.06.2019; KB – 1 male, 22.05.2019.

46. Chrysogaster tadjikorum Stackelberg, 1952

Stackelberg, 1952: 364; Daminova, 1992: 22.
Material: ZP1 – 1 male, 13.04.2019; ZP3 – 1 male, 26.04.2019; 1 male, 30.04.2019; Z7 – 2 males, 1 female, 22.05.2019; 11 males, 17.04.2022.

Genus *Lejogaster* Rondani, 1857

47. Lejogaster metallina (Fabricius, 1781)

Daminova, 2011: 143.
Material: Z4 – 1 female, 07.05.2021.

48. Lejogaster tarsata Meigen, 1822

Lejogaster splendida (Meigen, 1822) – Daminova 1987: 29; 2011: 143; 2014: 19.
Material: AT – 1 male, 07.04.2019; Z7 – 2 males, 3 females, 13.05.2021; PS – 1 male, 12.06.2019.

Genus *Orthonevra* Macquart, 1829

49. Orthonevra frontalis (Loew, 1843)

Daminova, 1997: 34; 2011: 143.
Material: Z7 – 1 male, 17.04.2022; KG – 1 male, 02.06.2018.

Tribus Ceriodini Wahlgren, 1909

Genus *Ceriana* Rafinesque, 1815

50. Ceriana brunetti (Shannon, 1927)

Violovitsh, 1974: 85; Daminova, 1992: 22; 2011: 143.
Material: Z2 – 1 male, 28.05.2020.

51. Ceriana sartorum Smirnov, 1924

Smirnov, 1924: 350; Violovitsh, 1974: 86; Daminova 1992: 23.
Material: Z2 – 1 male, 28.05.2020; Z4 – 1 male, 22.05.2019; 4 males, 4 females, 07.05.2020; UV – 1 male, 04.05.2020, ChR – 1 male, 1 female, 10.04.2021.

Tribus Eristalini Newman, 1834

Genus *Anasimyia* Schiner, 1864

52. Anasimyia subtransfugus (Stackelberg) 1963

Daminova 1987: 29; 1992: 24; 2014: 18 (*Helophilus subtransfugus*).
Material: ChR – 4 males, 10.04.2021.

Genus *Eristalinus* Rondani, 1845

53. Eristalinus (*Eristalinus*) *aeneus* (Scopoli, 1763)

Alimdzhanov, Bronstein, 1956: 324; Peck, 1968: 119; Daminova, 1992: 24.
Material: ZP1 – 1 male, 11.05.2019; BG – 3 males, 1 female, 17.03.2019; UV – 2 males, 06.08.2019; 1 male, 3 females, 09.08.2020; 7 females, 24.08.2022; YT – 1 male, 02.04.2019.

54. Eristalinus quinquelineatus (Fabricius, 1781)

Alimdzhanov, Bronstein, 1956: 324; Daminova 1987: 29;
Remarks. We didn't found specimens of this species in SAMSU.

55. Eristalinus (*Eristalinus*) *sepulchralis* (Linnaeus, 1758)

Alimdzhanov, Bronstein, 1956: 324; Daminova, 1987: 29; 1992: 24; 2014: 18.
Material: ZP2 – 1 female, 14.04.2021; UV – 5 males, 3 females, 06.08.2019.

Genus *Eristalis* Latreille, 1804

56. Eristalis arbustorum (Linnaeus, 1758)

Alimdzhanov, Bronstein, 1956: 324; Daminova, 1987: 29; 1992: 24.
Material: IS – 1 female, 03.05.2019; ZP3 – 1 male, 14.03.2020; ZP2 – 5 males, 6 females, 14.04.2020; BG – 4 males, 7 females, 17.03.2019; UV – 1 male, 06.08.2019; 8 males, 1 female, 04.05.2020; Z1 – 2 males, 7 females, 06.05.2020; Z2 – 6 males, 1 female, 28.05.2020; Z3 – 7 males, 2 females, 14.06.2022; 6 males, 5 females, 02.05.2019;

Z4 – 10 males, 6 females, 5 – 12.05.2016; 10 males, 13 females, 13 – 23.06.2017; 10 males, 11 female, 12 – 18.05.2018; 6 males, 7 females, 17 – 24.05.2019; 3 males, 6 females, 07.05.2020; Z5 – 1 male, 02.06.2022; Z6 – 12 males, 9 females, 12.05.2021; Z7 – 5 males, 22.05.2019; 9 males, 4 females, 13.06.2020; Z8 – 5 males, 7 females, 14.04.2019; 6 males, 2 females, 20.05.2020; Z9 – 6 males, 1 female, 05.06.2022; Z13 – 3 males, 22.09.2020; Z15 – 1 male, 8 females, 23.06.2019; KK – 1 male, 7 females, 16.03.2019; YT – 9 males, 1 female, 02.04.2019; 13 males, 8 females, 16.03.2020.

57. Eristalis tenax (Linnaeus, 1758)

Smirnov, 1924: 292; Daminova, 1987: 29; 1992: 24.

Material: IS – 1 male, 7 females, 03.05.2019; O – 1 male, 1 female, 09.05.2019; AT – 7 males, 6 females, 07.04.2019; ZP1 – 3 males, 2 females, 11.05.2019; ZP2 – 6 males, 8 females, 14.04.2020; ZP3 – 1 female, 14.03.2020; RD – 1 female, 01.03.2020; BG – 1 male, 8 females, 17.03.2019; BF – 1 female, 09.02.2021; UV – 4 males, 5 females, 06.08.2019; 1 male, 04.05.2020; Z1 – 8 males, 6 females, 06.05.2020; Z2 – 1 female, 28.05.2020; 6 males, 2 females, 12.08.2021; Z3 – 7 males, 8 females, 14.06.2022; 8 males, 15 females, 02.05.2019; Z4 – 14 males, 10 females, 5 – 12.05.2016; 5 males, 11 females, 13 – 23.06.2017; 11 males, 19 females, 12 – 18.05.2018; 14 males, 9 females, 17 – 24.05.2019; 11 males, 11 females, 07.05.2020; Z5 – 14 males, 2 females, 13–14.06.2020; 5 males, 1 female, 30.05.2021; 1 male, 02.06.2022; Z6 – 2 males, 2 females, 12.05.2021; 1 male, 6 females, 30.05.2021; Z7 – 4 males, 7 females, 22.05.2019; 6 males, 1 female, 13.06.2020; 1 female, 30.06.2019; 5 males, 1 female, 17.04.2022; Z8 – 11 males, 13 females, 14.04.2019; 9 males, 6 females, 20.05.2020; Z9 – 8 males, 11 females, 05.06.2022; Z10 – 9 males, 8 females, 26.04.2021; Z11 – 7 males, 11 females, 20.04.2020; Z12 – 9 males, 6 females, 24.05.2021; Z13 – 7 males, 1 female, 22.09.2020; 7 males, 1 female, 04.07.2020; Z14 – 4 males, 6 females, 24.05.2021; Z15 – 7 males, 12 females, 23.06.2019; KK – 1 male, 9 females, 16.03.2019; YT – 8 males, 14 females, 02.04.2019.

Genus *Helophilus* Meigen, 1822

58. Helophilus continuus Loew, 1854

Alimdzhanov, Bronstein, 1956: 324; Daminova 1987: 29; 2004: 169.

Remarks. We didn't found specimens of this species in SAMSU.

59. Helophilus pendulus (Linnaeus, 1758)*

Alimdzhanov, Bronstein, 1956: 324.

Remarks. We have not found any specimens of this species in SAMSU. We also found no other literature data on the presence of this species in Uzbekistan.

60. Helophilus (*Helophilus*) *trivittatus* (Fabricius, 1805)

Daminova 1988: 90 (*Tubifera trivittatus* Fabricius, 1805); 1992: 24 (*Helophilus parallelus* (Harris, 1776).

Material: ZP1 – 1 male, 13.04.2019; ZP3 – 1 female, 07.05.2019; ZP2 – 2 males, 14.04.2020. PS – 1 female, 12.06.2019.

61. Helophilus turanicus Smirnov 1923

Smirnov, 1923: 85; Peck, 1988: 197.

Material: ZP3 – 1 female, 07.05.2019; UV – 1 male, 06.08.2019; 1 female, 01.05.2020.

Genus *Mesembrinus* Rondani, 1857

62. Mesembrinus peregrinus (Loew, 1846)

Daminova 1987: 29 (*Helophilus peregrinus*); Daminova, 1992: 24; 2014: 18.

Material: ZP3 – 1 male, 26.04.2019.

Genus *Myathropa* Rondani, 1845

63. Myathropa semenovi (Smirnov, 1925)

Smirnov, 1924: 293; Daminova, 1997: 33.

Material: ZP1 – 2 males, 11.05.2019; ZP2 – 1 female, 14.04.2020; ZP3 – 1 male, 26.04.2019; 1 female, 07.05.2019; UV – 4 males, 3 females, 06.08.2019; 4 males, 3 females, 04.05.2020; Z4 – 3 males, 1 female, 5 – 12.05.2016; 2 males, 2 females, 13 – 23.06.2017; 8 males, 8 females, 12 – 18.05.2018; 1 male, 1 female, 02.04.2019; 1 male, 4 females, 17 – 24.05.2019; Z5 – 1 male, 02.06.2022; Z6 – 6 males, 3 females, 12.05.2021; 4 males, 5 females, 30.05.2021; Z8 – 1 male, 14.04.2019; Z11 – 8 males, 6 females, 20.04.2020; Z13 – 1 male, 22.09.2020.

Tribus Eumerini Smirnov, 1924

Genus *Eumerus* Meigen, 1822

64. Eumerus amoenus Loew, 1848

Alimdzhanov, Bronstein, 1956: 324; Daminova, 1992: 22; 2011: 143.

Material: Z4 – 1 male, 07.05.2020; Z5 – 1 female, 02.06.2022.

65. Eumerus aristatus Peck, 1969

Daminova, 1992: 22.

Material: UV – 1 male, 10.10.2019; Z1 – 7 males, 5 females, 06.05.2020; Z2 – 8 males, 5 females, 28.05.2020; Z4 – 1 male, 07.05.2020; Z5 – 8 males, 14.05.2021; 2 males, 02.06.2022; Z8 – 5 males, 2 females, 20.05.2020; Z9 – 5 males, 6 females, 05.06.2022; Z12 – 1 male, 24.05.2021.

66. Eumerus bactrianus Stackelberg, 1952

Daminova, 1987: 29; 1992: 22; 2011: 143.

Material: Z7 – 1 male, 13.06.2020.

67. Eumerus coeruleus (Becker, 1913)

Stackelberg, 1961: 191; Daminova, 1992: 22.

Material: Z7 – 3 females, 30.06.2019; 1 male, 19.07.2019; Z14 – 3 males, 24.05.2021.

68. Eumerus emarginatus Loew, 1848*

Alimdzhanov, Bronstein, 1956: 324

Remarks. We didn't found specimens of this species in SAMSU. This species was described from Sicily and distributed around the Mediterranean Sea, so its presence in Western Zarafshan is very doubtful.

69. Eumerus gussakowskii Stackelberg, 1949

Daminova, 1992: 22.

Material: Z5 – 1 female, 13.06.2020; Z13 – 2 males, 1 female, 22.09.2020; 1 female, 04.07.2020.

70. Eumerus kondarensis Stackelberg, 1952

Stackelberg, 1952: 383; Daminova, 1992: 22.

Material: UV – 1 female, 12.07.2020; Z2 – 4 males, 1 female, 28.05.2020; Z4 – 2 males, 3 females, 07.05.2020; 1 male 14.06.2022; Z5 – 1 male, 2 females, 14.06.2020; 3 males, 2 females, 30.05.2021; 2 males, 1 female, 13.06.2021; Z5 – 1 male, 02.06.2022; Z6 – 3 males, 12.05.2021; 1 male, 30.05.2021; Z7 – 1 female, 22.05.2019; 1 female, 30.06.2019; Z8 – 6 males, 2 females, 14.04.2019; 2 females, 20.05.2020; Z13 – 1 male, 22.09.2020.

71. Eumerus pamirorum Stackelberg, 1949

Daminova, 2011: 143.

Material: Z2 – 2 males, 1 female, 28.05.2020; Z5 – 5 males, 1 female, 30.05.2021; 5 males, 14.06.2020; 5 males, 1 female, 03.06.2022; Z14 – 1 male, 04.07.2020.

72. Eumerus purpureus Macquart, 1839*

Alimdzhanov, Bronstein, 1956: 324.

Remarks. We didn't found specimens of this species in SAMSU. This species was described from Canary Islands, so its presence in Western Zarafshan is very doubtful.

73. Eumerus roborovskii Stackelberg, 1952

Peck, 1988: 161.

Material: Z5 –1 male, 02.06.2022.

74. Eumerus rushanicus Stackelberg, 1952

Daminova 1997: 31; 2011: 143.

Material: Z13 – 1 female, 22.09.2020; Z14 – 1 male, 04.07.2020.

75. Eumerus sogdianus Stackelberg, 1952

Alimdzhanov, Bronstein, 1956: 324; Stackelberg, 1961: 207; Daminova 1997: 31; 2011: 143.

Material: UV – 2 males, 12.07.2020; 1 male, 21.07.2020.

76. Eumerus strigatus (Fallen, 1817)

Alimdzhanov, Bronstein, 1956: 324.

Remarks. We didn't found specimens of this species in SAMSU.

77. Eumerus sp.

Alimdzhanov, Bronstein, 1956: 324.

Remarks. In the "Invertebrates of the Zeravshan Valley" (Alimdzhanov and Bronstein, 1956) indicates the species *Eumerus maculipenius* Fll. which was not in any catalog. If there is a typo here, then it can be assumed that they meant either *Eumerus maculipennis* Bezzi, 1915, or *Eumerus maculipennis* Becker, 1921. The first species is known from Africa (Peck 1988), the second is described from Turkmenistan (Becker, 1921) and turned out to be a junior homonym and was reassigned as

Eumerus binominatus Herve-Bazin, 1923. Therefore, the presence of this species in the Zarafshan Valley does not contradict the logic (Grković et all. 2019). But we didn't found specimens of this species in SAMSU.

78. Eumerus tadzhikorum Stackelberg, 1949

Stackelberg, 1949: 434 Daminova 2011: 143.

Material: Z6 – 1 male, 13.06.2021; Z7 – 2 females, 13.06.2020; Z9 – 1 male, 05.06.2022; Z14 – 1 male, 04.07.2020.

79. Eumerus turanicus Stackelberg, 1952

Daminova, 1997: 33.

Material: Z14 – 1 male, 04.07.2020.

80. Eumerus ursiculus Stackelberg, 1949

Daminova 1987: 29; Peck, 1988: 164.

Material: Z6 – 2 males, 30.05.2021; Z14 – 3 males, 1 female, 04.07.2020.

Genus *Merodon* Meigen, 1803

81. Merodon aberrans Egger, 1860*

Alimdzhanov, Bronstein, 1956: 324.

Remarks. No specimens have been found in the SAMSU. The species was described from Europe and is distributed to the Caucasus, so its presence in Western Zarafshan is very doubtful.

82. Merodon pruni (Rossi, 1790)

Daminova, 1992: 22.

Material: Z5 – 1 male, 14.06.2020.

83. Merodon tarsatus Sack, 1913

Alimdzhanov, Bronstein, 1956: 324 (*Lampetia tarsata* (Sack, 1913); Daminova, 1992: 22.

Material: Z8 – 4 males, 8 females, 14.04.2019; 6 males, 20.05.2020; Z9 – 6 males, 6 females, 05.06.2022; Z12 – 4 males, 24.05.2021.

*84. Merodon turkestanicu*s Paramonov, 1927

Paramonov, 1927: 77; Daminova, 1992: 22.

Material: Z5 – 1 male, 02.06.2022; Z7 –1 female, 17.04.2022; Z8 – 4 males, 4 females, 14.04.2019; 1 male, 2 females, 20.05.2020; Z9 – 13 males, 7 females, 05.06.2022; Z14 – 1 male, 04.07.2020.

Tribus Xylotini Bigot, 1883

Genus *Spilomyia* Meigen, 1803

85. Spilomyia manicata (Rondani, 1865)*

Alimdzhanov, Bronstein, 1956: 324.

Remarks. The species was described from Europe and is distributed to the Caucasus, so its presence in Western Zarafshan is very doubtful. No specimens have been found in the SAMSU. We believe that the record of this species from Uzbekistan is based on misidentification and probably these were specimens belonging to the *Spilomyia sulphurea* Sack, 1910.

86. Spilomyia sulphurea Sack, 191**0**

Peck, 1988: 215; Daminova, 1992: 22; 1997: 36.

Material: Z4 – 23.04.1940 – 1 male, 1 female (unknown collector); Z3 – 1 female, 02.06.2008 (E. Abdullayev).

Genus *Syritta* Le Peletier et Serville, 1828

87. Syritta pipiens (Linnaeus, 1758)

Smirnov, 1924: 292; Daminova 1987: 30.

Material: IS – 9 males, 6 females, 03.05.2019; O – 8 males, 8 females, 09.05.2019; AT – 1 female, 07.04.2019; ZP1 – 6 males, 2 females, 13.04.2019; 7 males, 3 females, 11.05.2019; ZP2 – 6 males, 3 females, 14.04.2020; ZP3 – 1 male, 26.04.2019; UV – 1 male, 6 females, 06.08.2019; 1 male, 5 females, 16.04.2020; 1 male, 12.07.2020; 1 male, 01.05.2020; 2 males, 04.05.2020; Z1 – 10 males, 5 females, 06.05.2020; Z4 – 5 males, 1 female, 5 – 12.05.2016; 2 males, 7 females, 13 – 23.06.2017; 6 males, 5 females, 12 – 18.05.2018; 5 males, 3 females, 17 – 24.05.2019; 3 males, 1 female, 07.05.2020; Z5 – 7 males, 10 females, 13–14.06.2020; 6 males, 7 females, 30.05.2021; 7 males, 5 females, 02.06.2022; Z6 – 3 males, 1 female, 30.05.2020; Z7 – 6 males, 5 females, 22.05.2019; 4 males, 9 females, 30.06.2019; 1 male, 6 females, 13.06.2020; 1 male, 8 females, 17.04.2022; Z8 – 8 males, 11 females, 14.04.2019; 6 males, 2 females, 20.05.2020; Z9 – 1 male, 1 female, 05.06.2022; Z10 – 6 males, 6 females,

26.04.2021; Z11 – 2 males, 11 females, 20.04.2020; Z12 – 1 male, 02.06.2019; Z13 – 2 males, 22.09.2020; Z15 – 1 male, 1 female, 23.06.2019; KB – 3 males, 1 female, 22.05.2019; JE – 4 males, 2 females, 12.05.2021; YT – 2 males, 16.03.2020; PS – 1 male, 2 females, 12.06.2019.

88. Syritta vittata Portschinsky, 1875

Alimdzhanov, Bronstein, 1956: 324.

Remarks. We didn't found specimens of this species in SAMSU.

Genus *Xylota* Meigen, 1822

89. Xylota ignava (Panzer, 1798)

Peck, 1988: 225; Daminova, 1992: 22.

Material: Z5 – 1 female, 30.05.2021.

Tribus Cheilosini Williston, 1885

Genus *Cheilosia* Meigen, 1822

***90. Cheilosia aerea* Dufour, 1848**

Material: ZP2 – 1 male, 14.04.2020; Z5 – 1 male, 02.06.2022; Z6 – 4 females, 12.05.2021; Z7 – 3 females, 30.06.2019; 2 males, 6 females, 13.06.2020; Z8 – 1 male, 14.04.2019; Z15 – 1 male, 23.06.2019; HL – 1 female, 12.06.2019.

91. Cheilosia grossa (Fallen, 1817)

Peck, 1988: 104.

Material: ZP3 – 1 female, 10.03.2019; 7 males, 6 females, 14.03.2020; 3 males, 22.03.2021; ZP2 – 2 males, 2 females, 14.04.2020; RD – 3 males, 01.03.2020; YT – 1 male, 16.03.2020.

***92. Cheilosia lola* Zimina, 1970**

Material: Z8 – 1 male, 20.05.2020.

***93. Cheilosia stackelbergi* Barkalov & Peck, 1994**

Material: HL – 2 males, 1 female, 12.06.2019.

Tribus Volucellini Newman, 1834

Genus *Volucella* Geoffroy, 1762

***94. Volucella bella* Barkalov, 2003**

Material: Z4 – 1 male, 01.06.2000 (E. Abdullayev leg.); BF – 1 male, 08.09.2022.

Remarks. We believe in the fauna of Uzbekistan, it was mistakenly reported by Alimdzhanov and Bronstein as *Volucella zonaria* (Poda, 1761) (Alimdzhanov and Bronstein 1956).

95. Volucella inanis (Linnaeus, 1758)

Alimdzhanov, Bronstein, 1956: 324.

Remarks. We didn't found specimens of this species in SAMSU.

96. Volucella pellucens (Linnaeus, 1758)*

Alimdzhanov, Bronstein, 1956: 324.

Remarks. We didn't found specimens of this species in SAMSU. We also found no other literature data on the presence of this species in Uzbekistan.

97. Volucella plumatoides Hervé–Bazin, 1923

Daminova 1987: 29; Peck, 1988: 131.

Material: HL – 1 male, 12.06.2019.

98. Volucella zonaria (Poda, 1761)*

Alimdzhanov, Bronstein, 1956: 324; Daminova 1987: 29;

Remarks. We believe that this species is absent in the fauna of the Western part of the Zarafshan Ridge, since specimens with such a label in the SAMSU actually belong to *Volucella bella* Barkalov, 2003.

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