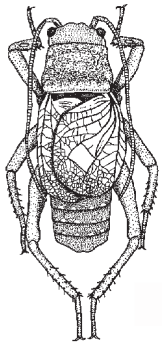

Far Eastern Entomologist

Дальневосточный энтомолог

Journal published by Far East Branch of the Russian Entomological Society and Laboratory of Entomology, Federal Scientific Center of the East Asia Terrestrial Biodiversity, Vladivostok

Number 537: 1-14 | ISSN 1026-051X (print edition) ISSN 2713-2196 (online edition) | November 2025

https://doi.org/10.25221/fee.537.1
https://elibrary.ru/pqqoax
https://zoobank.org/References/4BBD44E6-CFB7-451B-A3D2-5D505831CA1C

A NEW SPECIES AND NEW RECORDS OF HOVERFLIES (DIPTERA: SYRPHIDAE) FROM THE NAKHCHIVAN AUTONOMOUS REPUBLIC OF AZERBAIJAN

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Summary. Data on 22 species of hoverflies collected in the Nakhchivan Autonomous Republic of Azerbaijan in 2018, 2019, 2024 and 2025 are provided. Among them, *Merodon storozhenkoi* **sp. n.** described as new to science. Eleven species are newly recorded from Azerbaijan and nine species are newly recorded from the Nakhchivan Autonomous Republic. Now 100 species of hoverflies are known from this republic.

Key words: Diptera, flies, taxonomy, new species, fauna, new records, Caucasus, Palaearctic region.

В. А. Мутин, М. Ю. Прощалыкин. Новый вид и новые находки мух-журчалок (Diptera: Syrphidae) из Нахичеванской автономной республики, Азербайджан // Дальневосточный энтомолог. 2025. N 537. С. 1-14.

Резюме. Приведен список 22 видов мух-журчалок собранных в Нахичеванской автономной республике Азербайджана в 2018, 2019, 2024 и 2025 гг.

Из них *Merodon storozhenkoi* **sp. n.** описан как новый для науки, 11 видов впервые указываются для фауны Азербайджана и 9 видов – впервые для фауны Нахичеванской автономной республики. К настоящему времени из этой республики известно 100 видов мух-журчалок.

INTRODUCTION

The Caucasus region is distinguished by the high diversity and pronounced endemism of its fauna, which has led to its classification as a biodiversity hotspot (Maharramov *et al*., 2023; Astafurova *et al*., 2024). The characteristics of the Caucasian biota are particularly evident in the entomofauna as a whole, as well as in individual large families of dipterans, such as Syrphidae. Despite the long-standing interest in Caucasian hoverflies (Paramonov, 1927; Zimina, 1960), reviews of hoverflies from specific administrative regions are rare (Hauser, 1998; Mengual *et al*., 2020).

Nakhichevan Autonomous Republic (NAR) is exclave of Azerbaijan, in the southern part of the Transcaucasian plateau. It is bounded by Armenia to the north and east, Iran to the south and west, and Turkey to the west. The republic, which is mostly mountainous except for a plain in the west and southwest, lies to the east and north of the middle Aras River, which forms the frontier with Iran and Turkey.

To date, no reviews of the hoverflies of the Nakhchivan Autonomous Republic have been published. However, a fairly comprehensive overview of the region's hoverflies can be obtained from the publication by A.A. Stackelberg and V.A. Richter (1968) on the hoverflies of the Caucasus. Unfortunately, this article does not provide information on the collection sites of species that are widespread and common in the Caucasus region. Similarly, L.V. Zimina's previously published article (Zimina, 1960) provides no information on species widespread throughout the Transcaucasia.

Based on a study of recently collected specimens we here provide geographical data for 22 rarely collected and little-known species of hoverflies, with one species described as new and eleven species recorded from Azerbaijan for the first time; a new distributional records of nine hoverflies species from Nakhchivan Autonomous Republic are also reported.

The number of hoverflies species in the fauna of Nakhchivan Autonomous Republic is now increased to one hundred.

MATERIAL AND METHODS

Studied material included 101 specimens of hoverflies collected in the Nakhchivan Autonomous Republic of Azerbaijan in 2018, 2019, 2024 and 2025 by M.Yu. Proshchalykin. Specimens were deposited in the collection of the Federal Scientific Center of the East Asia Terrestrial Biodiversity of the Far Eastern Branch of the Russian Academy of Sciences, Vladivostok, Russia [FSCV, reg. number 2797657] and the research collection of V.A. Mutin, Komsomolsk-on-Amur, Russia [RCVM]. Species are listed in alphabetical order.

Photographs were taken with the stereomicroscope Olympus SZX16 and digital camera Olympus DP74, and stacked using CombineZM (Hadley 2008). The final illustrations were post-processed for contrast and brightness using Adobe® Photoshop® software.

AN ANNOTATED LIST OF SPECIES

Eristalinus megacephalus (Rossi, 1794)

MATERIAL EXAMINED. Azerbaijan: NAR, Julfa, Gulistan, 740 m [38°58′N 45°36′E], 26.VII 2018, 1 ♂, 3 ♀; Kangarli, Garabaglar, 1270 m [39°25′N 45°13′E], 13.VI 2019, 1 ♂.

DISTRIBUTION. Reported for NAR for the first time. This species as *Lathyrophthalmus quinquelineatus* was pointed by Zimina (1960) and Stackelberg & Richter (1968) from Armenia and the southeastern part of Azerbaijan (Talysh).

Eumerus bicornis Grković, Vujić et Hayat, 2019

MATERIAL EXAMINED. Azerbaijan: NAR, Zarnatun, 1550 m [39°28′42″N 45°43′53″E], 19.VI 2024, 2 ♂; Babek, Payiz, 1230 m [39°26′06″N 45°22′56″E], 20.V 2025, 1 ♂.

DISTRIBUTION. Reported for Azerbaijan for the first time. This species was noted from Greece (Lesvos Is.), Turkey and Turkmenistan (Grković *et al*., 2019; Barkalov & Mutin, 2024).

Eumerus claripennis Coe, 1957

Figs 1, 2

MATERIAL EXAMINED. Azerbaijan: NAR, Shakhbuz, Zarnatun, 1550 m [39°31′N 45°46′E], 14.VI 2019, 1 ♂; Babek, Payiz, 1230 m [39°26′06″N 45°22′56″E], 20.V 2025, 1 ♂.

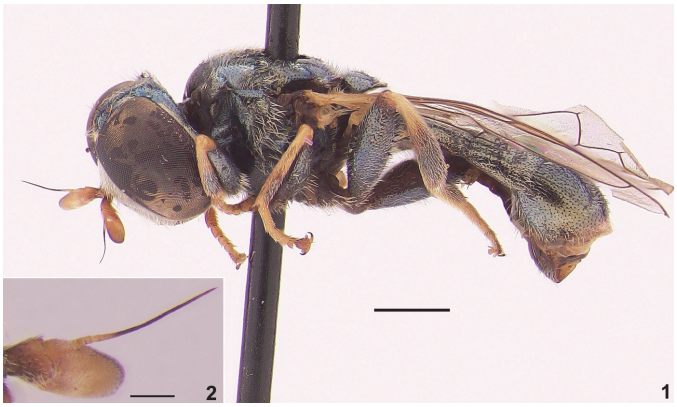
DISTRIBUTION. Reported for Azerbaijan for the first time. The species is known earlier from North Macedonia and Greece (Lesvos Is.) (Ricarte *et al*., 2012).

REMARKS. Examined male from Payiz (NAR) has a pair of yellow triangular maculae on tergum II, which are masked mainly by pruinosity. The male genitalia from a certain angle is similar one of *Eumerus ahmadii* Barkalov & Gharali, 2004, drawn original description. A comparison of the types or additional collection material from type localities will allow us to establish their conspecificity.

Eumerus falsus Becker, 1922

MATERIAL EXAMINED. Azerbaijan: NAR, Babek, Payiz, 1230 m [39°26′06″N 45°22′56″E], 20.V 2025, 1 ♂.

DISTRIBUTION. Reported for Azerbaijan for the first time. Known from Israel, Turkey, Armenia, Iran, Turkmenistan, and Tajikistan (Stackelberg, 1961; Gilasian *et al*., 2020).



Figs 1–2. *Eumerus claripennis* Coe, 1957: 1 – habitus, lateral view; 2 – antenna, lateral view. Scale bars: 0.5 mm.

***Eumerus jacobsoni* Becker, 1913**

MATERIAL EXAMINED. Azerbaijan: NAR, Ordubad, Bilav, 1050 m [39°02′43″N 45°49′07″E], 27.V 2025, 1 ♂.

DISTRIBUTION. Reported for Azerbaijan for the first time. Known from Afghanistan, Tajikistan and Iran (Stackelberg, 1961; Gilasian *et al*., 2020).

***Eumerus rubrum* Grković et Vujić, 2017**
Figs 3–7

MATERIAL EXAMINED. Azerbaijan: NAR, Shakhbuz, 4 km SE of Kechili, 2300 m [39°20′N 45°45′E], 21.VII 2018, 1 ♀; Sharur, Akhura, 1640 m [39°33'N 45°13'E], 13.VI 2019, 3 ♂; Kangarli, Garabaglar, 1270 m [39°25′N 45°13′E], 13.VI 2019, 2♂.

DISTRIBUTION. Reported for Azerbaijan for the first time. The species is described from a male and a female collected in different locations of continental Greece (Grković *et al*., 2017).

REMARKS. The specimens from NAR allow us to clarify the diagnostic characters to distinguish *E. rubrum* and *E. tauricus* Stackelberg, 1952, which is indistinguishable in the structure of the male genitalia. All examined specimens have like *E. tauricus* entirely black tergum I and dense long pile on ventral surface of metafemur. The distinctive characters of *E. rubrum* are primarily the orange color of the postpedicel (one of *E. tauricus* brown to almost entirely black) and larger size (it′s body length near 11–12 mm so one of *E. tauricus* does not exceed 9 mm). It differs also by an absence of black pile on vertex and tergum VIII (*E. tauricus* has more or less numerous black pile on the vertex and tergum VIII), grossly granulate dull vertex with pointed isosceles ocellar triangle (anterior angle of ocellar triangle distinctly less 60º), whereas vertex of *E. tauricus* less or more shining, with rare small granula, its ocellar triangle is nearly equilateral.

Figs 3–7. *Eumerus rubrum* Grković et Vujić, 2017, ♂ (3, 5, 7) and ♀ (4, 6): 3, 4 – habitus, lateral view; 4 – head, frontal view; 6 – antenna, dorso-lateral view; 7 – genitalia, lateral view. Scale bars: 1.0 mm.

***Lejogaster tarsata* (Megerle, 1822)**

MATERIAL EXAMINED. Azerbaijan: NAR, Julfa, Gazanchi, 1300 m [39°13′N 45°41′E], 15.VI 2019, 1 ♂.

DISTRIBUTION. Reported for NAR for the first time. Widely distributed in the Palearctic, Stackelberg & Richter (1968) noted this species (as *Lejogaster splendida*) in Armenia, Georgia and the southeastern part of Azerbaijan (Talysh).

***Melanostoma orientale* (Wiedemann, 1824)**

MATERIAL EXAMINED. Azerbaijan: NAR, Shakhbuz, Kechili, 1800 m [39°22′N 45°43′E], 22.VII 2018, 1 ♂; Julfa, Milakh, 1430 m [39°15′N 45°43′E], 27.VII 2018, 1 ♀; Shakhbuz, Shakhbuz, 1160 m [39°23′N 45°32′E], 30.VII 2018, 1 ♂; Sharur, Akhura, 1640 m [39°33'N 45°13'E], 13.VI 2019, 1 ♂; Julfa, Gazanchi, 1300 m [39°13′N 45°41′E], 15.VI 2019, 1 ♂, 1 ♀.

DISTRIBUTION. Reported for NAR for the first time. Widespread species in the Southern and Eastern Asia, found in the Eastern Georgia and the Caspian coast of Azerbaijan (Mutin & Barkalov, 1999).

REMARKS. The species is difficult to distinguish from *Melanostoma mellinum* (Linnaeus, 1758), which also exhibits wide variability in abdominal pattern. The main diagnostic feature of this species is the yellow maculae on tergum II, which reach the lateral margin.

***Merodon aurifer* Loew, 1862**

MATERIAL EXAMINED. Azerbaijan: NAR, Shakhbuz, 4 km SE of Kechili, 2300 m [39°20′N 45°45′E], 21.VII 2018, 1 ♂; Julfa, Gazanchi, 1300 m [39°13′N 45°41′E], 26.VII 2018, 3 ♂; Ordubad, Aghdara, 2000 m [39°06′N 45°54′E], 28.VII 2018, 1 ♂, 1♀; Shakhbuz, Shakhbuz, 1160 m [39°23′N 45°32′E], 30.VII 2018, 1♂.

DISTRIBUTION. Reported for NAR for the first time. Distributed in the Mediterranean from Spain and southern France to Iran (Eastern Azerbaijan), found in northeastern part of Azerbaijan (Vujić *et al*., 2021). Previously reported for Armenia as *Merodon distinctus* (Stackelberg & Richter, 1968).

***Merodon avidus* Rossi, 1790**

MATERIAL EXAMINED. Azerbaijan: NAR, Sharuz, Shahbulag, 1210 m [39°38′57″N 45°08′12″E], 26.V 2025, 1 ♂.

DISTRIBUTION. Reported for NAR for the first time. The *Merodon avidus* species complex is represented by a few species in the Transcaucasia, including sympatric ones, what creates problems with their identification. It was noted, that spring generations of *M. avidus* are very similar to those of *M. moenium* Meigen & Wiedemann, 1822 based on external morphology and are easily confused using existing diagnostic features (Vujić *et al*., 2024). It is probably this species that is listed in the review by Stackelberg & Richter (1968) as "*Merodon spinipes* ab. *avidus* Rondani" for Armenia, while the mentioned specimens from Talysh most likely refer to the recently described *M. atroavidus* Vujić, Radenković et Likov, 2024 or *Merodon nigroscutum* Vujić, Radenković et Likov, 2024. Mengual *et al*. (2020) points out, что all the identifications Caucasian members of *Merodon avidus* species complex are need the verification.

***Merodon erevanicus* Paramonov, 1925**

MATERIAL EXAMINED. Azerbaijan: NAR, Shakhbuz, 4 km SE of Kechili, 2300 m [39°20′N 45°45′E], 21.VII 2018, 1 ♀; Shakhbuz, Zarnatun, 1550 m [39°31′N 45°46′E], 24.VII 2018, 1 ♀; Shakhbuz, Zarnatun, 1550 m [39°31′N 45°46′E], 14.VI 2019, 1 ♂.

DISTRIBUTION. Reported for NAR for the first time. Known in the Mediterranean from Croatia to the northeastern part of Azerbaijan (Hauser, 1998).

Merodon femoratoides **Paramonov, 1925**

MATERIAL EXAMINED. Azerbaijan: NAR, Shakhbuz, 4 km SE of Kechili, 2300 m [39°20′N 45°45′E], 21.VII 2018, 3 ♂; Shakhbuz, Batabat, 2100 m [39°31′N 45°47′E], 24.VII 2018, 3 ♂; Julfa, Gulistan, 740 m [38°58′N 45°36′E], 26.VII 2018, 2 ♂; Shakhbuz, Kulus, 1620 m [39°21′56″N, 45°40′54″E], 27.VI 2024, 1 ♀.

DISTRIBUTION. Reported for Azerbaijan for the first time. Distributed in the Eastern Mediterranean, including Turkey, Crimea and the North Caucasus (Speight, 2024). Specimens from various locations in Transcaucasia, including Ordubad, identified by Paramonov (1927) and Stackelberg & Richter (1968) as *Merodon spinipes* var./ab. *nigritarsis* probably belong to this species. This material needs to be redefined.

Merodon flavitibius **Paramonov, 1926**

MATERIAL EXAMINED. Azerbaijan: NAR, Babek, Payiz, 1230 m [39°26′06″N 45°22′56″E], 20.V 2025, 2 ♂; Sharuz, Shahbulag, 1210 m [39°38′57″N 45°08′12″E], 26.V 2025, 6 ♂, 5 ♀.

DISTRIBUTION. Based on the results of the revision of the *Merodon aberrans* species group (Vujić *et al*., 2022), all records of *M. aberrans* Egger, 1860 in the Caucasus and Transcaucasia, including record in Lakedag, Julfa District (Stackelberg & Richter, 1968), should be regarded as *M. flavitibius*. This cryptic species is distributed from the North Caucasus to eastern Turkey and western Iran, where it replaces *M. aberrans*, which is widespread in Europe and western Turkey.

Merodon hypochrysos **Hurkmans, 1993**

MATERIAL EXAMINED. Azerbaijan: NAR, Babek, Payiz, 1230 m [39°26′06″N 45°22′56″E], 20.V 2025, 6 ♂, 2 ♀; Shakhbuz, Badamli, 1290 m [39°28′05″N 45°33′00″E], 21, 23.V 2025, 1 ♂, 1 ♀; Julfa, Daridagh-2, 1100 m [39°03′58″N, 45°37′35″E], 24.V 2025, 1 ♂, 6 ♀; Sharuz, Shahbulag, 1210 m [39°38′57″N 45°08′12″E], 26.V 2025, 1 ♂; Shakhbuz, Kulus, 1620 m [39°21′56″N, 45°40′54″E], 28.V 2025, 1 ♂, 1 ♀.

DISTRIBUTION. Reported for Azerbaijan for the first time. Previously known from Iran, Israel and Turkey (Vujić *et al*., 2023; Speigth, 2024).

Merodon nudicorpus **Vujić et Radenković, 2021**

MATERIAL EXAMINED. Azerbaijan: NAR, Babek, Yukhari Buzgov, 1720 m [39°31′N 45°22′E], 11.VI 2019, 1 ♂, 1 ♀; Kengerli, Chalkhangala, Girmizidash, 1900 m [39°28′34″N 45°14′18″E], 19.VI 2024, 2♀.

DISTRIBUTION. Reported for NAR for the first time. The species is described from material from Northeastern Azerbaijan and Eastern Turkey (Vujić *et al*., 2021). The type locality is listed as "Baku, Varafta mountains, W Kilyazi, 40º50'N 49º10'E, 250 m," indicating that this locality is in the Khizi Rayon, not the Baku Rayon of Azerbaijan.

***Merodon storozhenkoi* Mutin et Proshchalykin, sp. n.**

https://zoobank.org/NomenclaturalActs/65321231-F5D5-4272-90FD-3E6FEFA446B0

Figs 8–16

TYPE MATERIAL. Holotype – ♂, Azerbaijan: Nakhichevan Autonomous Republic, Babek, Payiz, 1230 m [39°26'06"N 45°22'56"E], 20.V 2025, M. Proshchalykin [FSCV]. Paratypes – 1 ♂, 1 ♀, with the same labels as the holotype [FSCV].

DIAGNOSIS. The species belongs to *Merodon tarsatus* species group (Vujić *et al*., 2023). It is similar to *M. hypochrysos* Hurkmans, 1993 by weakly modified basimetatarsus and black antennae, but it is distinguished from latter by a number of features: its basimetatarsus is more elongated, almost in 3 times longer than wide (basimetatarsus of *M. hypochrysos* about 2 times longer than wide); postpedicel is longer and strongly tapered to apex; metatrochanter with large spina; anterior surstyle lobe weakly separated (Figs 13–16); vertex and dorsal surface of occiput entirely with pale pile or only ocellar triangle with a few brownish pile (ocellar triangle of *M. hypochrysos* covered mainly black pilose).

DESCRIPTION. MALE. Body length – 11.0 mm, wing length 7.5–8.0 mm (Figs 8, 9).

Head. Face and frons black with weakly pruinose and covered by dense whitish pile; lunule shiny black to brown, bare. Eye contiguity short, about 6-8 facets long. Vertex black, weakly shiny, with whitish pile entirely or mixed with dark pile on ocellar triangle; ocelli form equilateral triangle. Occiput with whitish pile, ventrally covered with dense gray pruinosity. Eyes covered with dense pale pile. Vertical triangle: eye contiguity : frons = 5 : 1 : 4. Antenna dark brown; postpedicel elongated, about 2 times as long as wide, about 2 times as long as pedicel, weakly convex dorsally in basal corner, strongly tapered to apex; fossette dorsolateral and large (Fig. 13); arista brown.

Thorax. Scutum and scutellum black with olive-grey lustre, covered with dense, erect whitish pile; scutum without visible pruinose vittae. Posterodorsal part of anterior anepisternum, posterior anepisternum (except anteroventral angle), anepimeron, posterodorsal and anteroventral parts of katepisternum with long dense whitish pile. Wing membrane mostly covered with microtrichia. Calypter white. Legs mainly black, except yellow apex of femora, yellow apex and basal 1/3 of tibiae, dark yellow to brownish tarsi; basitarsomeres more or less blackish dorsally. Metatrochanter with large spine. Metafemur moderately curved, about 4 times longer than wide, with long pale pile ventrally and dorsally; some pile on ventral surface more 2/3 of width

of metafemur. Apicomedial lamina on metatibia distinct, covered with very long whitish pile. Basotarsomere of metatarsus expanded, almost 3 times longer than broad, a little wider basally in dorsal view, ventrally with weakly defined brush like area of dense pile extended in basal 1/3 (Fig. 14).

Figs 8–9. *Merodon storozhenkoi* Mutin et Proshchalykin, sp. n., ♂, paratype: 8 – dorsal view; 9 – lateral view. Scale bars: 1.0 mm.

Abdomen. Short pilose, about 1.5 times longer than mesonotum; terga black with olive-grey lustre; terga II-IV with narrow pruinose fasciae interrupted medially; pile on terga whitish; sternum II black, covered with long whitish pile; sternum 4 with small sized laminate extensions on posterior margin (Fig. 12).

Male genitalia (Figs 15, 16). Anterior surstyle lobe oval and elongated, about 2 times longer than wide, covered with dense, short pile; posterior surstyle lobe broad, rather triangular; cercus rectangular; hypandrium sickle-shaped, without lateral projections; lingula elongated and narrow.

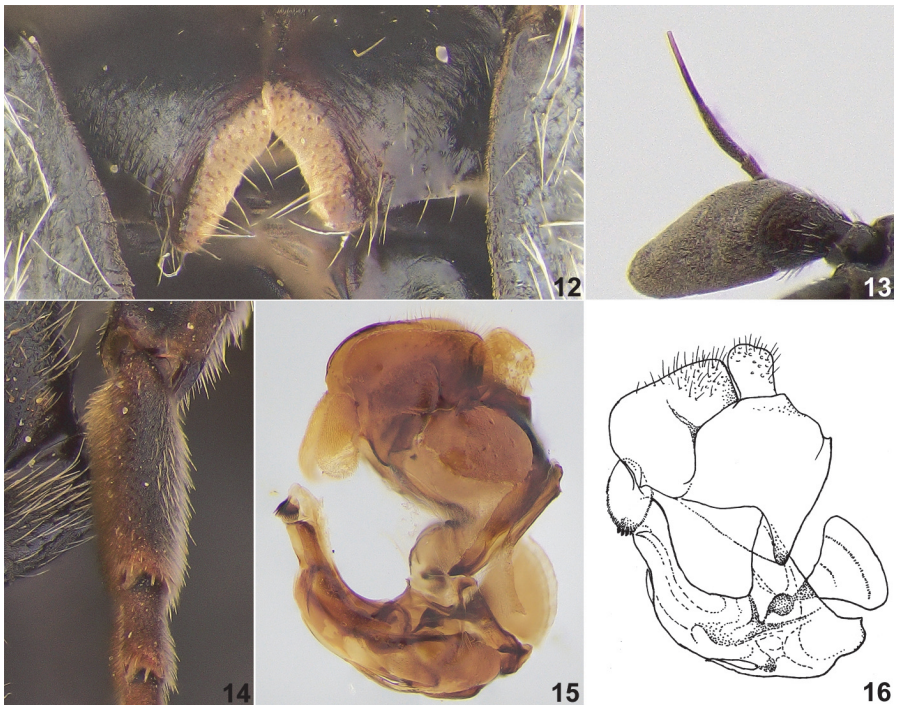
Figs 10–11. *Merodon storozhenkoi* Mutin et Proshchalykin, sp. n., ♀, paratype: 10 – dorsal view; 11 – lateral view. Scale bars: 1.0 mm.

FEMALE. Body length – 8.5 mm, wing length – 6.5 mm (Figs 10, 11).

Similar to male except for normal sexual dimorphism and following characteristics: Frons black, weakly shining medially and dense pruinose along eyes, vertex shiny black, with whitish pile. Antenna brown; postpedicel elongated, about 2 times as long as wide, almost 2,5 times as long as pedicel. Trochanter conical ventrally. Narrow pruinose fasciae on terga III–IV non interrupted medially. Sterna black, with rare pile, except medial part of sternum II.

ETYMOLOGY. This species is named after the well-known Russian orthopterist S.Yu. Storozhenko (Vladivostok, Russia) in honor of his seventieth birthday.

DISTRIBUTION. This new species is known from the type locality in Azerbaijan.



Figs 12–16. *Merodon storozhenkoi* Mutin et Proshchalykin, sp. n., paratype (12–14) and holotype (15, 16), ♂ (12, 14–16), ♀ (13): 12 – sternum 4, ventral, view; 13 – antenna, lateral view; 13 – metabasotarsomere, lateral view; 15, 16 – genitalia, lateral view.

***Orthonevra nobilis* (Fallén, 1817)**

MATERIAL EXAMINED. Azerbaijan: NAR, Shakhbuz, Kechili, 1800 m [39°22′N 45°43′E], 22.VII 2018, 1 ♀.

DISTRIBUTION. Reported for Azerbaijan for the first time. A Western Palaearctic species distributed eastward to the Altai and Sayan Mountains, known from Georgia (Mengual *et al*., 2020).

***Paragus bicolor* (Fabricius, 1794)**

MATERIAL EXAMINED. Azerbaijan: NAR, Shakhbuz, Kechili, 1800 m [39°22′N 45°43′E], 22.VII 2018, 2 ♀; Shakhbuz, Zarnatun, 1550 m [39°31′N 45°46′E], 24.VII 2018, 3 ♂; Julfa , Milakh, 1430 m [39°15′N 45°43′E], 27.VII 2018, 2 ♂; Ordubad, Nurgut, 1900 m [39°13′N 45°53′E], 29.VII 2018, 1 ♀; Babek,

Payiz, 1225 m [39°26′N 45°22′E], 11.VI 2019, 1 ♂; Babek, Payiz, 1230 m [39°26′06″N 45°22′56″E], 20.V 2025, 1 ♂, 1 ♀.

DISTRIBUTION. Reported for NAR for the first time. Distributed from the Atlantic coast of Eurasia to China and Transbaikalia. Known in Georgia, Armenia, and the Caspian region of Azerbaijan (Stackelberg & Richter, 1968; Hauser, 1998; Mengual *et al*., 2020).

***Pipizella caucasica* Skufjin, 1976**

MATERIAL EXAMINED. Azerbaijan: NAR, Shakhbuz, Batabat, 2100 m [39°31′N 45°47′E], 24.VII 2018, 1 ♂.

DISTRIBUTION. Reported for Azerbaijan for the first time. Known from North Caucasus, North-Eastern Turkey and Northern Iran (van Steenis & Lucas, 2011).

***Pipizella ochreobasalis* van Steenis et Lucas, 2011**

MATERIAL EXAMINED. Azerbaijan: NAR, Zarnatun, 1550 m [39°28′42″N 45°43′53″E], 21.VI 2024, 1 ♂.

DISTRIBUTION. Reported for Azerbaijan for the first time. Known from Turkey and Iran (van Steenis & Lucas, 2011; Speight, 2024).

***Syrphus admirandus* Goeldlin, 1996**

MATERIAL EXAMINED. Azerbaijan: NAR, Babek, Yukhari Buzgov, 1720 m [39°31′N 45°22′E], 11.VI 2019, 1 ♂.

DISTRIBUTION. Reported for Azerbaijan for the first time. The species is widespread in the Palearctic region and has not previously been recorded in the Transcaucasia (Speight, 2024).

***Xanthogramma dives* (Rondani, 1857)**

MATERIAL EXAMINED. Azerbaijan: NAR, Shakhbuz, Zarnatun, 1550 m [39°31′N 45°46′E], 14.VI 2019, 1 ♀.

DISTRIBUTION. Reported for NAR for the first time. The species is widespread in the Western Palaearctic, recorded in Turkey and Georgia.

REMARKS. It was considered a synonym of *X. pedissequum* (Harris, 1778) for some time (Peck, 1988). Stackelberg & Richter (1968) considered *X. pedissequum* as a common species throughout the Caucasus region and counted the synonym of *X. maculipenne* Mik, 1887 which was described for specimens collected in Göygöl (Azerbaijan). Probably, latter is conspecific *X. dives* (Mengual *et al*., 2020). Speight (2024) think, that in the Mediterranean zone *X. pedissequum* is largely replaced by *X. dives* and *X. stackelbergi* Violovitsh, 1975. The results of recent review of Georgia‘s hoverflies actually confirms this opinion (Mengual *et al*., 2020).

ACKNOWLEDGEMENTS

The research was carried out within the state assignment of Ministry of Science and Higher Education of the Russian Federation (theme No. 124012400285-7).

REFERENCES

Astafurova, Yu.V., Proshchalykin. M.Yu. & Maharramov, M.M. (2024) A new species and new records of *Lasioglossum* Curtis (Hymenoptera, Halictidae) from Azerbaijan. *Far Eastern Entomologist*, 513: 1–9. DOI: 10.25221/fee.513.1

Barkalov, A.V. & Mutin, V.A. 2024. Review of the *Eumerus strigatus* (Fallen, 1817) species group (Diptera, Syrphidae) in the central and eastern parts of the Palaearctic. Part I. Checklist with description of new species. *Euroasian Entomological Journal*, 23(4): 189–205. Appendix 1–6. DOI: 10.15298/euroasentj.23.04.02

Gilasian, E., Steenis, J. van & Parchami-Araghi, M. 2020. Review of the *Eumerus tricolor* species group (Diptera: Syrphidae) in Iran, with description of six new species. *European Journal of Taxonomy*, 722: 106–152. DOI: 10.5852/ejt.2020.722.1139

Grković, A., Vujić, A., Chroni, A., van Steenis, J., Đan, M. & Radenković, S. 2017. Taxonomy and systematics of three species of the genus *Eumerus* Meigen, 1822 (Diptera: Syrphidae) new to southeastern Europe. *Zoologischer Anzeiger*, 270: 176–192. DOI: 10.1016/j.jcz.2017.10.007

Grković, A., van Steenis, J., Kočiš Tubić, N., Nedeljković, Z., Hauser, M., Hayat, R., Demırözer, O., Đan, M., Vujić, A. & Radenković, S. 2019. Revision of the *bactrianus* subgroup of the genus *Eumerus* Meigen (Diptera: Syrphidae) in Europe, inferred from morphological and molecular data with descriptions of three new species. *Arthropod Systematics & Phylogeny*, 77(1): 21–37. DOI: 10.26049/ASP77-1-2019-02

Hauser, M. 1998. Zur Schwebfliegenfauna (Diptera, Syrphidae) Aserbaidschans, mit der Beschreibung von zwei neuen Arten. *Volucella*, 3: 15–26.

Maharramov, M.M., Fateryga, A.V. & Proshchalykin, M.Yu. (2023) New records of megachilid bees (Hymenoptera: Megachilidae) from the Nakhchivan Autonomous Republic of Azerbaijan. *Far Eastern Entomologist*, 472: 18–24. DOI: 10.25221/fee.472.2

Mengual, X., Bot, S., Chkhartishvili, T., Reimann, A., Thormann, J. & von der Mark, L. 2020. Checklist of hoverflies (Diptera, Syrphidae) of the Republic of Georgia. *ZooKeys*, 916: 1–123. DOI: 10.3897/zookeys.916.47824

Mutin, V.A. & Barkalov, A.V. 1999. 62. Family Syrphidae. P. 342–500. *In*: Sidorenko, V.S. (Ed.). *Key to the insects of Russian Far East. Vol. VI. Diptera and Siphonaptera. Pt. 1*. Dalnauka, Vladivostok. [In Russian]

Paramonov, S.Ju. 1927. Fragmente zur Kenntnis der Dipteren-Fauna Armeniens. *Societas Entomologica*, 42: 2–4, 9–11, 15–16, 19–20, 24.

Peck, L.V. 1988. Family Syrphidae. P. 11–230. *In*: Soós, A. & Papp, L. (Eds). *Catalogue of Palaearctic Diptera, Vol. 8*, Budapest.

Ricarte, A., Nedeljković, Z., Rotheray, G.E., Lyszkowski, R., Hancock, E., Watt, K., Hewitt, S., Horsfield, D. & Wilkinson, G. 2012. Syrphidae (Diptera) from the Greek island of Lesvos, with description of two new species. *Zootaxa*, 3175(1): 1–23. DOI: 10.11646/zootaxa.3175.1.1

Speight, M.C.D. 2024. *Species accounts of European Syrphidae, 2024. Syrph the Net, the database of European Syrphidae (Diptera), Vol. 115, 381 pp.*, Syrph the Net publications, Dublin.

Stackelberg, A.A. 1961. Palaearctic species of the genus *Eumerus* Mg. (Diptera, Syrphidae). *Trudy Vsesojuznogo Entomologicheskogo Obshchestva*, 48: 181–229. [In Russian]
Stackelberg, A.A. & Richter, V.A. 1968. Hover-flies (Diptera, Syrphidae) of the Caucasus. *Trudy Vsesoyuznogo Entomologicheskogo Obshchestva*, 52: 224–274. [In Russian]
van Steenis, J. & Lucas, J.A.W. 2011. Revision of the West-Palaearctic species of *Pipizella* Rondani, 1856 (Diptera, Syrphidae). *Dipterists Digest*, 18: 127–180.
Vujić, A., Likov, L., Popov, S., Radenković, S. & Hauser, M. 2021. Revision of the *Merodon aurifer* group (Diptera: Syrphidae) with new synonyms of *M. testaceus* Sack, 1913. *Journal of Asia-Pacific Entomology*, 24(4): 1301–1312. DOI: 10.1016/j.aspen.2021.08.014
Vujić, A., Radenković, S., Kočiš Tubić, N., Likov, L., Popov, G., Rojo, S. & Miličić, M. 2022. Integrative taxonomy of the *Merodon aberrans* (Diptera, Syrphidae) species group: Distribution patterns and description of three new species. *Contributions to Zoology*, 92: 51–96. DOI: 10.1163/18759866-bja10037
Vujić, A., Radenković, S., Barkalov, A., Kočiš Tubić, N., Likov, L., Tot, T., Popov, G., Prokhorov, A., Gilasian, E., Anjum, S., Djan, M., Kakar, B. & Andrić, A. 2023. Taxonomic revision of the *Merodon tarsatus* species group (Diptera, Syrphidae). *Arthropod Systematics & Phylogeny*, 81: 201–256. DOI: 10.3897/asp.81.e93570
Vujić, A., Kočiš Tubić, N., Radenković, S., Ačanski, J., Likov, L., Arok, M., Gorše, I. & Djan, M. 2024. The extraordinary diversity of *Merodon avidus* complex (Diptera: Syrphidae) – adding new areas, new species and a new molecular marker. *Insects*, 15: 105. DOI: 10.3390/insects15020105
Zimina, L.V. 1960. On the fauna of hoverflies (Diptera, Syrphidae) of Transcaucasus. *Entomologicheskoe Obozrenie*, 39: 661–665. [In Russian]