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TO THE KNOWLEDGE OF EUMENINE WASPS (HYMENOPTERA: VESPIDAE: EUMENINAE) OF NAKHCHIVAN AUTONOMOUS REPUBLIC OF AZERBAIJAN

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Summary. The data on 25 species of eumenine wasps collected in Nakhchivan Autonomous Republic of Azerbaijan in July, 2018 are given. Ten species are new for Azerbaijan; other 5 species are new for Nakhchivan Autonomous Republic. The known fauna of this republic numbers 66 species of eumenine wasps. A new synonymy is proposed for *Eustenancistrocerus tegularis* (Morawitz, 1885) = *E. israelensis* Giordani Soika, 1952, *syn. n.*; the lectotype of *Lionotus tegularis* Morawitz, 1885 is designated.

Key words: potter wasps, distribution, synonymy, Caucasus, Palaearctic region.

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К познанию ос-эвменин (Нименооптера: Vespidae: Eumeninae) Нахичеванской Автономной Республики Азербайджана // Дальневосточный энтомолог. 2019. N 379. С. 25-32.

Резюме. Приводятся данные о 25 видах ос-эвменин, собранных в Нахичеванской Автономной Республике Азербайджана в июле 2018 г. Впервые для Азербайджана приводится 10 видов; еще 5 видов являются новыми для Нахичеванской Республики. Известная фауна данной республики насчитывает 66 видов ос-эвменин. Установлена новая синонимия для *Eustenancistrocerus tegularis* (Morawitz, 1885) = *E. israelensis* Giordani Soika, 1952, *syn. n.*; обозначен лектотип *Lionotus tegularis* Morawitz, 1885.

INTRODUCTION

The subfamily Eumeninae is the most diverse group of vespid wasps. More than 3750 species of eumenine wasps are known in the World and about 1000 species occur in the Palaearctic region (Perrard *et al.*, 2017; Antropov & Fateryga, 2017). There is no published

list of eumenine wasps of Azerbaijan but there is a paper with the list of these wasps in Nakhchivan Autonomous Republic containing 50 species (Aliyeva, 2010). One of them, *Eumenes lunulatus* Fabricius, 1804, is currently a synonym of another species, *E. coarctatus* (Linnaeus, 1758) (see Antropov & Fateryga, 2017), also reported from there. However, at least two additional species, *Leptochilus nacrocephalus* (Kostylev, 1940) and *Odynerus fulvitarsis* (Morawitz, 1895), must be added to the list published by Aliyeva (2010) since they were described from Ordubad (van der Vecht & Fischer, 1972). The purpose of the present investigation is to report new records of eumenine wasps collected in Nakhchivan Autonomous Republic of Azerbaijan.

MATERIAL AND METHODS

Studied material included 120 eumenine wasp specimens collected in July, 2018 in 14 localities. Geographical coordinates and administrative locations of collection sites are as follows: **Azerbaijan:** Nakhchivan Autonomous Republic: Babek, Shikhmakhmud, 39°15'N 45°25'E, 940 m; Julfa, 9 km N Julfa, 39°02'N 45°36'E, 900 m; Julfa, Gazanchi, 39°13'N 45°41'E, 1300 m; Julfa, Gulistan, 38°58'N 45°36'E, 740 m; Julfa, Milakh, 39°15'N 45°43'E, 1430 m; Ordubad, Aghdara, 39°06'N 45°54'E, 2000 m; Ordubad, Nurgut, 39°13'N 45°53'E, 1900 m; Shakhdzuz, Ayrinj, 39°25'N 45°35'E, 1240 m; Shakhdzuz, Kechili, 39°22'N 45°43'E, 1800 m; Shakhdzuz, 4 km SE Kechili, 39°20'N 45°45'E, 2300 m; Shakhdzuz, Kolani, 39°28'N 45°43'E, 1300 m; Shakhdzuz, Shakhdzuz, 39°23'N 45°32'E, 1160 m; Shakhdzuz, Shakhdzuzkend, 39°23'N 45°32'E, 1140 m; Shakhdzuz, Zarnatun, 39°31'N 45°46'E, 1550 m. All specimens were collected by M.Yu. Proshchalykin, Kh.A. Aliyev, and M.M. Maharramov (thus, the information on the collectors is not repeated in the text). Specimens were deposited in the collection of the Federal Scientific Center of the East Asia Terrestrial Biodiversity of the Far East Branch of the Russian Academy of Sciences, Vladivostok, Russia [FSCV] and the collection of A.V. Fateryga (T.I. Vyazemsky Karadag Scientific Station – Nature Reserve of the Russian Academy of Sciences, Feodosiya, Russia) [CAFK]. Distribution of species generally follows Antropov & Fateryga (2017) and references therein. New records are asterisked (*).

LIST OF SPECIES

Alastor (Alastor) mocsaryi (André, 1884)

MATERIAL EXAMINED. Ordubad, Aghdara, 28.VII 2018, 1 ♀ [FSCV].

DISTRIBUTION. Europe, Russia, Armenia, Azerbaijan (*new for Nakhchivan AR), Turkey, Syria, Lebanon.

Ancistrocerus gazella (Panzer, 1798)

MATERIAL EXAMINED. Ordubad, Aghdara, 28.VII 2018, 1 ♂ [FSCV].

DISTRIBUTION. Europe, N Africa, Russia, *Azerbaijan, Turkey, Cyprus, Israel, Iran, Afghanistan, ?Pakistan. Introduced into N America and New Zealand.

Ancistrocerus parietum (Linnaeus, 1758)

MATERIAL EXAMINED. Ordubad, Nurgut, 29.VII 2018, 3 ♂ [FSCV].

DISTRIBUTION. Europe, N Africa, Russia, Armenia, Azerbaijan, Turkey, Iran, Kazakhstan, Mongolia, Korean Peninsula, Japan.

Antepipona deflenda (S. Saunders, 1853)

MATERIAL EXAMINED. Julfa, Gulistan, 26.VII 2018, 1 ♀; Julfa, Gazanchi, 27.VII 2018, 1 ♂; Ordubad, Aghdara, 28.VII 2018, 3 ♂ [FSCV].

DISTRIBUTION. Europe, N Africa, Russia, Georgia, Armenia, Azerbaijan, Turkey, Cyprus, Jordan, Lebanon, Israel, Iraq, Iran, Turkmenistan, Tajikistan, Uzbekistan, Kazakhstan, China.

***Antepipona specifica* (Morawitz, 1895)**

MATERIAL EXAMINED. Ordubad, Aghdara, 28.VII 2018, 1 ♂; Babek, Shikhmakhmud, 30.VII 2018, 2 ♀ [CAFK].

DISTRIBUTION. *Azerbaijan, Iraq, Iran, Turkmenistan, Uzbekistan, Kyrgyzstan.

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

MATERIAL EXAMINED. Shakhbuz, Kolani, 24.VII 2018, 3 ♂; Shakhbuz, Zarnatun, 24.VII 2018, 2 ♂; Shakhbuz, Ayrinj, 25.VII 2018, 1 ♂; Julfa, Gazanchi, 26.VII 2018, 1 ♂; Julfa, Milakh, 27.VII 2018, 2 ♂; Ordubad, Aghdara, 28.VII 2018, 3 ♀, 5 ♂; Shakhbuz, Shakhbuzkend, 23.VII, 30.VII 2018, 2 ♂ [FSCV].

DISTRIBUTION. Europe, N Africa, Russia, Armenia, Azerbaijan, Turkey, Cyprus, Syria, Jordan, Israel, Iran, Central Asia, Kazakhstan, Mongolia, China, Japan.

***Eumenes* (*Eumenes*) *coronatus* (Panzer, 1799)**

MATERIAL EXAMINED. Babek, Shikhmakhmud, 20.VII 2018, 1 ♂; Shakhbuz, Kolani, 24.VII 2018, 2 ♂; Julfa, Milakh, 27.VII 2018, 1 ♂; Ordubad, Aghdara, 28.VII 2018, 1 ♂ [FSCV].

DISTRIBUTION. Europe, Russia, *Azerbaijan, Turkey, Israel, Iran, Central Asia, Kazakhstan, Mongolia, China, Korean Peninsula, Japan.

***Eumenes* (*Eumenes*) *dubius* de Saussure, 1852**

MATERIAL EXAMINED. Babek, Shikhmakhmud, 20.VII 2018, 1 ♂; Julfa, Gazanchi, 26.VII 2018, 1 ♂ [FSCV].

DISTRIBUTION. Europe, N Africa, Russia, Azerbaijan, Turkey, Cyprus, Syria, Jordan, Lebanon, Israel, Iraq, Iran, Turkmenistan, Tajikistan, Kazakhstan. Introduced into S America.

***Eumenes* (*Eumenes*) *jarkandensis* Blüthgen, 1938**

MATERIAL EXAMINED. Julfa, Milakh, 27.VII 2018, 1 ♀, 2 ♂ [CAFK, FSCV]; Ordubad, Nurgut, 29.VII 2018, 2 ♂; Shakhbuz, Shakhbuzkend, 23.VII 2018, 1 ♂; Shakhbuz, Zarnatun, 25.VII 2018, 1 ♂ [FSCV].

DISTRIBUTION. *Azerbaijan, Turkey, Lebanon, Iran, Turkmenistan, Tajikistan, Kyrgyzstan, Mongolia.

***Eumenes* (*Eumenes*) *mediterraneus* Kriechbaumer, 1879**

MATERIAL EXAMINED. Babek, Shikhmakhmud, 20.VII 2018, 1 ♀, 4 ♂, 30.VII 2018, 1 ♂; Shakhbuz, Shakhbuzkend, 22.VII, 23.VII 2018, 2 ♂; Shakhbuz, Zarnatun, 24.VII 2018, 1 ♂, 25.VII 2018, 3 ♂; Julfa, Milakh, 27.VII 2018, 1 ♀; Ordubad, Aghdara, 28.VII 2018, 2 ♂ [FSCV].

DISTRIBUTION. Europe, N Africa, Russia, Armenia, Azerbaijan, Turkey, Cyprus, Syria, Jordan, Lebanon, Israel, Saudi Arabia, Yemen, UAE, Oman, Iraq, Iran, Afghanistan, Pakistan, Central Asia, Kazakhstan, Mongolia, China, Korean Peninsula. Introduced into Tahiti.

***Eumenes* (*Eumenes*) *papillarius* (Christ, 1791)**

MATERIAL EXAMINED. Shakhbuz, Kolani, 24.VII 2018, 1 ♀ [FSCV].
DISTRIBUTION. Europe, Russia, *Azerbaijan, Turkey, Syria, Lebanon, Israel, Iran, Pakistan, Central Asia, Kazakhstan, Mongolia.

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

MATERIAL EXAMINED. Ordubad, Aghdara, 28.VII 2018, 1 ♂ [FSCV].
DISTRIBUTION. Europe, N Africa, Russia, Armenia, Azerbaijan, Turkey, Lebanon, UAE, Pakistan, Central Asia, Kazakhstan, China, Korean Peninsula, India.

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

MATERIAL EXAMINED. Shakhbuz, Zarnatun, 25.VII 2018, 1 ♂ [FSCV].
DISTRIBUTION. Europe, N Africa, Russia, Georgia, Armenia, Azerbaijan, Turkey, Syria, Jordan, Lebanon, ?Israel, Iran, Afghanistan, Central Asia, Kazakhstan, Mongolia, China, Korean Peninsula, Japan, SE Asia.

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

MATERIAL EXAMINED. Shakhbuz, Kechili, 22.VII 2018, 3 ♂; Ordubad, Nurgut, 29.VII 2018, 1 ♂ [FSCV].
DISTRIBUTION. Europe, N Africa, Russia, Georgia, Armenia, Azerbaijan (*new for Nakhchivan AR), Turkey, Israel, Iran.

***Eustenancistrocerus* (*Eustenancistrocerus*) *jerichoensis* (von Schulthess, 1928)**

MATERIAL EXAMINED. Shakhbuz, Shakhbuzkend, 22.VII 2018, 1 ♀, 1 ♂ [CAFK, FSCV].
DISTRIBUTION. *Azerbaijan, Turkey, Syria, Jordan, Israel, Iran.

***Eustenancistrocerus* (*Eustenancistrocerus*) *tegularis* (Morawitz, 1885)**

Figs 1–4

Lionotus tegularis Morawitz, 1885: 165–167, ♀, ♂ (type locality [Azerbaijan]: “Tschemachli” [currently Gushchu (Yevlax Distr.), 40°41'N 47°14'E]), **lectotype (designated here)**: ♀, Transcauc.[asia], Tschemachli // к.[оллекция] Ф. Моравица [Collection of F. Morawitz] // *Lionotus tegularis* F. Morawitz // typ., F. Morawitz det. // Lectoholotypus <red label> // Lectotypus *Lionotus tegularis* Mor., ♀, des. Kurzenko, 1976 <red label>. Paralectotype: ♂, Tschemachli, Christoph [leg.] // к.[оллекция] Ф. Моравица [Collection of F. Morawitz] // *tegularis*, ♂ // typ., F. Morawitz det. // Paralectotypus *Lionotus tegularis* Mor., ♂, des. Kurzenko, 1976 <red label> [Zoological Institute of the Russian Academy of Sciences, Saint Petersburg, Russia] (Figs 1–4).

Eustenancistrocerus israelensis Giordani Soika, 1952: 34–35, ♂ (type locality [Israel]: “Gerico” [Jericho]), lectotype (designated by Giordani Soika, 1973: 41): ♂, “di Jericho” [Natural History Museum, Venice, Italy], **syn. n.**

MATERIAL EXAMINED. Shakhbuz, Kechili, 22.VII 2018, 1 ♂; Shakhbuz, Kolani, 24.VII 2018, 1 ♂; Shakhbuz, Zarnatun, 24.VII, 25.VII 2018, 2 ♂; Ordubad, Nurgut, 29.VII 2018, 1 ♂; Shakhbuz, Shakhbuzkend, 30.VII 2018, 1 ♀ [FSCV].



Figs 1–4. *Lionotus tegularis* Morawitz: 1–3 – ♀, lectotype (1 – habitus, lateral view; 2 – head, frontal view; 3 – labels); 4 – ♂, paralectotype (labels).

DISTRIBUTION. Europe, Armenia, Azerbaijan (*new for Nakhchivan AR), Turkey, Syria, Israel, Iran, Central Asia, Kazakhstan. The recent record from Russia (Fateryga *et al.*, 2017) is erroneous.

REMARKS. *Eustenancistrocerus israelensis* was initially synonymized with *E. tegularis* by Blüthgen (1955). Giordani Soika (1957) then rejected this synonymy. After that, Blüthgen (1963) confirmed the synonymy of these two species again. Guseinleitner (1970) then rejected this synonymy again and provided schematic sketches of male last flagellomeres of *E. israelensis* and *E. tegularis* (Guseinleitner, 1970: 116). According to his sketches, the last flagellomere of *E. israelensis* is slightly broadened distally (Fig. 3b in Guseinleitner, 1970) but that of *E. tegularis* is slightly narrowed distally (Fig. 3c in Guseinleitner, 1970). Guseinleitner also reported that the male of *E. tegularis* studied by him had been compared by Giordani Soika with the type specimen. In the same year, Giordani Soika (1970) provided illustration of female tegulae of the both species (Giordani Soika, 1970: 92). He also reported that the specimen of *E. tegularis* studied by him had been compared with the holotype. According to the illustrations, *E. israelensis* has broader and more densely punctured tegula (Fig. 19 in Giordani Soika, 1970) than *E. tegularis* (Fig. 21 in Giordani Soika, 1970).

Thus, *E. israelensis* and *E. tegularis* were considered to be two distinct species since 1970 (van der Vecht & Fischer, 1972) that was already after Blüthgen's death. The problem is, however, that there was no "holotype" of *E. tegularis*, although there is a female specimen with Giordani Soika's label "Lectoholotypus" and Kurzenko's lectotypification label (Fig. 3). We did not find any of these designations in the published papers. Thus, we hereby designate formally this specimen as a lectotype (see above). Examination of the lectotype showed that tegula of *E. tegularis* (Fig. 1) corresponds rather to Giordani Soika's illustration of *E. israelensis* than *E. tegularis*. We examined also a huge material of *E. tegularis* from the Caucasus and Central Asia and found no specimens with such tegula as in the Giordani Soika's illustration of *E. tegularis* (Fig. 21 in Giordani Soika, 1970). Unfortunately, the male paralectotype of *E. tegularis* has broken tips of the both antennae. Anyway, we also did not find any specimen with the last flagellomere as in the Guseleinleitner's sketch of *E. tegularis* (Fig. 3c in Guseleinleitner, 1970). All male specimens examined by us had parallel sided last flagellomere that was somewhat intermediate between Guseleinleitner's sketches of *E. israelensis* and *E. tegularis* but more similar to *E. israelensis*. Thus, we consider that Blüthgen (1955, 1963) was absolutely correct in the synonymy of *E. israelensis* with *E. tegularis*.

Eustenancistrocerus (Parastenancistrocerus) amadanensis (de Saussure, 1855)

MATERIAL EXAMINED. Babek, Shikhmakhmud, 20.VII 2018, 3 ♀, 1 ♂, 30.VII 2018, 3 ♀; Shakhbuz, Shakhbuzkend, 22.VII 2018, 1 ♀, 1 ♂, 23.VII 2018, 1 ♀; Shakhbuz, Zarnatun, 24.VII 2018, 1 ♂, 25.VII 2018, 1 ♀, 1 ♂; Julfa, Gazanchi, 26.VII 2018, 1 ♀; Julfa, Milakh, 27.VII 2018, 1 ♂; Ordubad, Aghdara, 28.VII 2018, 1 ♂; Ordubad, Nurgut, 29.VII 2018, 1 ♂ [FSCV].

DISTRIBUTION. Europe, N Africa, Russia, Azerbaijan, Turkey, Cyprus, Syria, Israel, Saudi Arabia, Iraq, Iran, Pakistan, Central Asia, Kazakhstan.

Jucancistrocerus (Jucancistrocerus) caspicus Giordani Soika, 1970

MATERIAL EXAMINED. Babek, Shikhmakhmud, 20.VII 2018, 1 ♀; Shakhbuz, Kechili, 22.VII 2018, 1 ♀, 6 ♂; Shakhbuz, Shakhbuzkend, 23.VII 2018, 1 ♂; Shakhbuz, Zarnatun, 24.VII 2018, 1 ♂; Julfa, Milakh, 27.VII 2018, 1 ♀, 3 ♂; Ordubad, Nurgut, 29.VII 2018, 1 ♂; Shakhbuz, Shakhbuz, 30.VII 2018, 1 ♂ [FSCV].

DISTRIBUTION. Europe, Russia, Georgia, Armenia, Azerbaijan (*new for Nakhchivan AR), Turkey, Iran, Kazakhstan.

REMARKS. This species has been only recently reported from Azerbaijan (Fateryga, 2017); the previous records of *J. jucundus* (Mocsáry, 1883) (Aliyeva, 2010) may actually refer to *J. caspicus*.

Katamenes sichelii (de Saussure, 1852)

MATERIAL EXAMINED. Julfa, 9 km N Julfa, 26.VII 2018, 1 ♀ [CAFK]; Julfa, Gazanchi, 26.VII 2018, 1 ♀ [FSCV].

DISTRIBUTION. Europe, N Africa, Russia, Armenia, Azerbaijan, Turkey, Jordan, Israel, Saudi Arabia, UAE, Iraq, Iran, Afghanistan, Central Asia, Kazakhstan, Mongolia, China, India.

Microdynerus (Alastorynerus) microdynerus (Dalla Torre, 1889)

MATERIAL EXAMINED. Shakhbuz, 4 km SE Kechili, 21.VII 2018, 1 ♀ [FSCV].

DISTRIBUTION. Europe, Russia, Georgia, Armenia, *Azerbaijan, Turkey, Jordan, Iran, Tajikistan, Kazakhstan.

***Parodontodynerus ephippium* (Klug, 1817)**

MATERIAL EXAMINED. Ordubad, Nurgut, 29.VII 2018, 1 ♂ [FSCV].

DISTRIBUTION. Europe, Russia, Armenia, Azerbaijan, Turkey, Lebanon, Iran, Turkmenistan, Uzbekistan, Kazakhstan.

***Raphiglossa eumenoides* S. Saunders, 1850**

MATERIAL EXAMINED. Shakhbuz, Zarnatun, 25.VII 2018, 2 ♀, 1 ♂ [CAFK, FSCV].

DISTRIBUTION. Europe, Armenia, *Azerbaijan, Turkey, Lebanon, Iran.

***Stenodynerus chevrieranus* (de Saussure, 1855)**

MATERIAL EXAMINED. Shakhbuz, Shakhbuzkend, 30.VII 2018, 1 ♀ [FSCV].

DISTRIBUTION. Europe, *Azerbaijan, Russia, Turkey, Iran, Central Asia, Kazakhstan.

***Stenodynerus chitgarensis* Giordani Soika, 1970**

MATERIAL EXAMINED. Shakhbuz, Zarnatun, 24.VII, 25.VII 2018, 2 ♂ [CAFK].

DISTRIBUTION. *Azerbaijan, Turkey, Iran, Uzbekistan, Kyrgyzstan.

***Tachyancistrocerus schmidti* (Kokujev, 1913)**

MATERIAL EXAMINED. Babek, Shikhmakhmud, 30.VII 2018, 1 ♂ [FSCV].

DISTRIBUTION. Armenia, Azerbaijan (*new for Nakhchivan AR), Turkey, Iran, Uzbekistan, Kyrgyzstan.

DISCUSSION

Only 10 species of the 25 ones listed above were previously reported for Nakhchivan Autonomous Republic (Aliyeva, 2010): *Ancistrocerus parietum*, *Antepipona deflenda* [as *Odynerus parvulus* Lepeletier de Saint-Fargeau, 1841], *Eumenes coarctatus*, *E. dubius*, *E. mediterraneus*, *E. pomiformis*, *Euodynerus dantici*, *Eustenancistrocerus amadanensis* [as *E. transitorius* (Morawitz, 1867)], *Katamenes sichelii* [as *Eumenes baerii* Radoszkowski, 1865], and *Parodontodynerus ephippium*. Fifteen remained species are new for Nakhchivan. Among them, 10 species are new for Azerbaijan. Five of them (*Ancistrocerus gazella*, *Eumenes coronatus*, *E. papillarius*, *Microdynerus microdynerus*, and *Stenodynerus chevrieranus*) were previously reported for the “Caucasus” (Antropov & Fateryga, 2017) that meant three countries: Georgia, Armenia, and Azerbaijan (see Belokobylskij & Lelej, 2017), although their presence in Azerbaijan were not documented by specimen-based records. Thus, 66 species of eumenine wasps are known in Nakhchivan Autonomous Republic today but several previous reports require confirmation.

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