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# New data on the Lepidoptera of Armenia (Lepidoptera: Papilionoidea)

M. Langourov

## Abstract

The paper represents results of entomological expedition carried out in the central and southern parts of Armenia in May and June 2018. It includes a list of 124 Lepidoptera species (Papilionoidea) recorded with comments on their distribution. Two species are reported for the first time for the country: *Pieris mannii* (Mayer, 1851) and *Plebejus morgianus* (Kirby, 1871). Three cases of suspected errors in label data of the material are reviewed. It is assumed that these errors are attributable to mislabelling of material collected elsewhere, and it is concluded that all that records be considered highly doubtful and preferably ignored altogether until independent confirmation.

KEY WORDS: Lepidoptera, Papilionoidea, distribution, new data, revised records, Armenia.

## Nuevos datos sobre los Lepidoptera de Armenia (Lepidoptera: Papilionoidea)

## Resumen

El trabajo representa el resultado de la expedición entomológica realizada en la parte central y del sur de Armenia en mayo y junio de 2018. Incluye una lista de 124 especies de Lepidoptera (Papilionoidea) registradas con comentarios sobre su distribución. Dos especies se citan por primera vez para el país: *Pieris mannii* (Mayer, 1851) y *Plebejus morgianus* (Kirby, 1871). Se revisan tres casos del material con supuestos errores en las etiquetas. Estos supuestos errores son atribuibles a rotular mal el material colectado en otro lugar y se ha llegado a la conclusión de que todos estos registros son considerados altamente dudosos y se prefiere ignorarlos hasta que se confirme independientemente.

PALABRAS CLAVE: Lepidoptera, Papilionoidea, distribución, nuevos datos, registros revisados, Armenia

## Introduction

Very few articles with precise localities were published before the book, covering Caucasus and Transcaucasia (TSHIKOLOVETS & NEKRUTENKO, 2012). One of this work is based on the results of an expedition to central Armenia (Khosrov Nature Reserve) and containing a list of butterfly species (except skippers) from the reserve (EMMEL *et al.*, 1996). The most detailed and significant contribution is related to the region of South Armenia, which was very poorly known previously (AGHABABYAN & KHANAMIRIAN, 2011). All previous records were summarised and published in TSHIKOLOVETS & NEKRUTENKO (2012), together with new ones and precise distributional maps. Recently four new country records were published in two other works (MORGUN, 2012; ZARIKIAN & KALASHIAN, 2018).

## Material and Methods

In the end of May and beginning of June 2018 a lepidopterological expedition was carried out in

Central and Southern Armenia. The author visited some of the more interesting wild areas of Armenia—many semidesert, steppe and wooded habitats in different geographic regions: Khosrov Forest State Reserve, Vike Mt, Zangezur Mts, Arax Valley, Meghri Mts and Shikahogh Reserve, Arpa River Valley, Vardenis Mts, Sevan Lake Shore, Sevan Mt and Pambak Mts. Several new and interesting records of Armenia's butterflies were collected. The present paper summarises these data and includes a list of recorded species with comments on their distribution in the country. During our survey, coordinates and altitudes were obtained in the field with GPS (Garmin nüvi 2597 LMT). Most of the butterflies were photographed in the nature or netted for identification and released. Photographs were taken with a Panasonic DC-FZ82 camera. Butterflies are listed in taxonomical order following the nomenclature of TSHIKOLOVETS (2011) (modified after TSHIKOLOVETS, 2016, 2018) except for *Plebejus modicus* Verity, 1935 (replacing *Plebejus zephyrinus* (Christoph, 1884)) and for the *Melanargia* where the nomenclature follows NAZARI *et al.* (2010).

#### LIST OF LOCALITIES

The list of localities contains the relevant toponyms, a short description of the habitat, altitude, coordinates and dates of the observations. Localities are arranged in chronological order by the dates of author's visits (Fig. 1).

- [1] Yerevan, Musaler suburb; suburban area with arable land and orchards; 862 m; 40.160681 N, 44.387281 E; 26-V-2018.
- [2] Barakaghbyur Valley, N of Dashtakar Village; semidesert rocky valley with scattered shrubs; 978 m; 39.931941 N, 44.744171 E; 26-V-2018 (Fig. 2).
- [3] SE of Shaghap Village; middle mountain steppe with scattered shrubs and trees, near a stream; 1403 m; 39.865741 N, 44.916011 E; 26-V-2018.
- [4] near Lanjanist Village; middle mountain steppe with scattered shrubs and trees; 1590 m; 39.861071 N, 44.939191 E; 26-V-2018.
- [5] 4 km E of Urtsadzor Village; semidesert rocky valley; 1130-1170 m; 39.942011 N, 44.863001 E; 27-V-2018.
- [6] near Tapi Berd (Gevorg Marzpetuni Fortress); arid steppe; 1201 m; 39.958091 N, 44.871181 E; 27-V-2018.
- [7] Khosrov Forest State Reserve; arid steppe with scattered shrubs and riverbank vegetation; 1276 m; 39.975981 N, 44.876111 E; 27-V-2018 (Fig. 3).
- [8] W of Saravan Village; semidesert rocky slopes with scattered shrubs; 1533 m; 39.714051 N, 45.616441 E; 28-V-2018.
- [9] Vorotan Pass; wet high mountain subalpine meadows; 2347 m; 39.687211 N, 45.713731 E; 28-V-2018.
- [10] Zorats Karer/ Zorats Kar; high mountain steppe; 1768 m; 39.549021 N, 46.033621 E; 28-V-2018.
- [11] Meghri Pass; subalpine meadows; 2540 m; 39.115641 N, 46.161321 E; 28-V-2018.
- [12] Agarak Village; orchards; 710 m; 38.868901 N, 46.188271 E; 29-V-2018.
- [13] near Meghri; semidesert rocky slopes with scattered shrubs; 720 m; 38.897731 N, 46.232911 E; 29-V-2018.
- [14] W of Meghri; arid rocky valley with xerothermophilous shrubs; 874 m; 38.898431 N, 46.218201 E; 29-V-2018 (Fig. 4).
- [15] near Kuris Village; meadows in a low mountain xerothermophilous wood; 1308 m; 38.930601 N, 46.172081 E; 29-V-2018.
- [16] between Kuris and Gudemnis Villages; meadows in a low mountain xerothermophilous wood; 1323 m; 38.935931 N, 46.176541 E; 29-V-2018.
- [17] N of Meghri, near Meghri River; rocky river valley with xerothermophilous shrubs and orchards; 732 m; 38.915561 N, 46.232551 E; 30-V-2018 (Fig. 5).

- [18] near Shvanidzor, dry riverbed; dry stony valley with xerothermophilous shrubs and orchards; 608-684 m; 38.931611 N, 46.381711 E; 30-V-2018.
- [19] Arevik National Park near Shvanidzor; arid rocky valley with xerothermophilous shrubs; 736-782 m; 38.934641 N, 46.387201 E; 30-V-2018.
- [20] Arevik National Park near Gyumorats (Gomerants) Village ruins; meadows in mesophilous wood; 1515 m; 38.996151 N, 46.376591 E; 31-V-2018.
- [21] SE of Chakaten Village; meadows in mesophilous wood; 975 m; 39.134311 N, 46.471171 E; 31-V-2018.
- [22] W of Tsav (Tzav) Village; meadows in mesophilous wood; 1150 m; 39.050481 N, 46.445091 E; 31-V-2018.
- [23] W of Arpi, near Arpa River; steppe rocky slopes with scattered trees; 1036 m; 39.734071 N, 45.233151 E; 01-VI-2018.
- [24] E of Arpi, dry riverbed; semidesert rocky slopes with scattered shrubs; 1065 m; 39.736791 N, 45.291441 E; 01-VI-2018.
- [25] Noravank Valley, near Gnishik River; steppe rocky slopes with riverbank shrubs; 1195 m; 39.710281 N, 45.207171 E; 01-VI-2018.
- [26] near Noravank monastery; steppe rocky slopes with shrubs and riverbank wood; 1423 m; 39.682161 N, 45.235321 E; 01-VI-2018 (Fig. 6).
- [27] crossroad to Artavan, near Darb River; steppe and riverbank wood; 1362 m; 39.692141 N, 45.562581 E; 02-VI-2018.
- [28] road to Herher; steppe slopes with scattered shrubs; 1395 m; 39.702411 N, 45.528061 E; 02-VI-2018.
- [29] Arpa Gorge, NW of Gndevaz Village; wooded steppe slopes with rocks and riverbank wood; 1552 m; 39.768401 N, 45.609211 E; 02-VI-2018.
- [30] Gravidzor, S of Agarakadzor; arid steppe slopes; 1301 m; 39.706471 N, 45.349121 E; 03-VI-2018 (Fig. 7).
- [31] W of Gandzak Village ruins; high mountain steppe with scattered shrubs; 1970 m; 39.681401 N, 45.308031 E; 03-VI-2018.
- [32] S of Gnishik Village; high mountain steppe; 2057-2150 m; 39.657461 N, 45.300641 E; 03-VI-2018.
- [33] N of Gnishik Village; high mountain steppe with goat=s-thorn bushes; 2112 m; 39.673121 N, 45.305211 E; 03-VI-2018.
- [34] N of Aghnjadzor Village, near Lernantsk Caravanserai; sandy valley in high mountain steppe with scattered shrubs; 1717-1786 m; 39.916411 N, 45.241701 E; 04-VI-2018.
- [35] S slope of Selim (Vardenyats) Pass; high mountain steppe and hygrophilous vegetation; 2081 m; 39.937951 N, 45.231341 E; 04-VI-2018.
- [36] N of Selim (Vardenyats) Pass, near Gailadzor River; wet subalpine meadows; 2280 m; 39.975731 N, 45.238231 E; 04-VI-2018.
- [37] E of Shorja (Shorzha) Village; sandy slopes in high mountain steppe with goat=s-thorn bushes; 1923 m; 40.494901 N, 45.291481 E; 05-VI-2018.
- [38] valley SE of Tsapatagh Village; high mountain steppe with scattered trees and shrubs; 1986-2007 m; 40.399431 N, 45.480471 E; 05-VI-2018.
- [39] valley above Djil Village; high mountain steppe with scattered shrubs; 2104 m; 40.458851 N, 45.460421 E; 05-VI-2018.
- [40] valley NE of Tsapatagh Village; high mountain steppe with scattered trees and shrubs; 1970-2025 m; 40.415381 N, 45.478811 E; 06-VI-2018.
- [41] above Aghveran Resort; high mountain deciduous and riverbank woods; 1969-2004 m; 40.519851 N, 44.559251 E; 06-VI-2018.
- [42] Azat Gorge; low mountain dry steppe rocky gorge and riverbank wood; 1258 m; 40.108921 N, 44.731691 E; 07-VI-2018 (Fig. 8).

[43] Azat Gorge to Garni Village; low mountain dry steppe with scattered trees and shrubs; 1259-1382 m; 40.113931 N, 44.730381 E; 07-VI-2018.

## Results

### HESPERIIDAE PYRGINAE

*Erynnis marloyi* (Boisduval, [1834])

Ararat Province ([5]; [42]); Vayots Dzor Province ([26]; [29]; [34]); Gegharkunik Province ([40]). Known from central and extreme south Armenia (DIDMANIDZE, 2004: 198; TSHIKOLOVETS & NEKRUTENKO, 2012: 32).

*Erynnis tages* (Linnaeus, 1758)

Syunik Province ([20]; [22]); Vayots Dzor Province ([26]; [29]; [32]; [34]); Gegharkunik Province ([35]; [38]; [40]); Kotayk Province ([41]). Known from central and extreme south Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 31), our data extend the species distribution to Sevan Mounts.

*Carcharodus lavatherae* (Esper, [1783])

Ararat Province ([7]; [42]); Vayots Dzor Province ([29]; [34]). Known from vicinity of the border with Nakhchivan (Nakhichevan) in Central and Southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 33), our data extend the species distribution to Vardenis Mounts.

*Carcharodus alceae* (Esper, [1780])

Ararat Province ([7]; [42]); Syunik Province ([18]; [22]); Vayots Dzor Province ([29]). Widespread in Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 32).

*Carcharodus stauderi* Reverdin, 1913

Syunik Province ([14]; [18]; [19]). Known only from two localities-near Yeghegnadzor and Karchevan (TSHIKOLOVETS & NEKRUTENKO, 2012: 34), our data extend the species distribution to Arevik Mounts.

*Carcharodus orientalis* Reverdin, 1913

Ararat Province ([7]; [42]); Syunik Province ([22]); Vayots Dzor Province ([29]). Known from Khosrov Nature Reserve, Gnishik and Meghri Mt (TSHIKOLOVETS & NEKRUTENKO, 2012: 35), our data extend the species distribution to Arevik Mts and southcentral Armenia.

*Spialia orbifer* (Hübner, [1823])

Ararat Province ([7]); Syunik Province ([16]; [20]; [22]); Vayots Dzor Province ([25]; [26]; [29]; [30]; [34]); Gegharkunik Province ([35]; [37]; [40]). Widespread in Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 36), our data extend the species distribution to Vardenis Mts and southcentral part of the country.

*Spialia phlomidis* (Herrich-Schäffer, [1845])

Ararat Province ([42]); Gegharkunik Province ([40]). Known from central and extreme south Armenia and north shore of Sevan Lake (TSHIKOLOVETS & NEKRUTENKO, 2012: 37).

*Muschampia tessellum* (Hübner, [1803])

Ararat Province ([42]); Vayots Dzor Province ([29]; [30]); Gegharkunik Province ([35]). Widespread in Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 39; *ibid.* as *Muschampia nomas* (Lederer, 1855): 40), our data extend the species distribution to Vardenis Mounts.

*Pyrgus melotis* (Duponchel, [1834])

Ararat Province ([4]); Syunik Province ([11]; [22]); Vayots Dzor Province ([9]; [26]; [30]; [34]); Gegharkunik Province ([38]; [40]). Widespread in Armenia (TUZOV *et al.*, 1997: 118, 423; TSHIKOLOVETS & NEKRUTENKO, 2012: 42), our data extend the species distribution to Vardenis Mts and southcentral Armenia.

*Pyrgus serratulae* (Rambur, [1839])

Ararat Province ([4]; [7]); Syunik Province ([20]; [22]); Vayots Dzor Province ([26]; [29]; [33]; [34]); Gegharkunik Province ([38]; [40]); Kotayk Province ([43]). Widespread in Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 43).

*Pyrgus armoricanus* (Oberthür, 1910)

Ararat Province ([3]; [6]). Known from central and extreme south Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 44-45).

*Pyrgus cinarae* (Rambur, [1839])

Vayots Dzor Province ([29]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 48).

*Pyrgus sidae* (Esper, [1784])

Ararat Province ([3]; [4]; [7]; [42]); Syunik Province ([16]; [20]; [22]); Vayots Dzor Province ([8]; [26]; [28]; [29]; [30]; [34]). Relatively widespread in Armenia, known from vicinity of the border with Nakhchivan (Nakhichevan) in Central and Southern Armenia and near Sevan Lake (TSHIKOLOVETS & NEKRUTENKO, 2012: 50), our data extend the species distribution to Vardenis Mts and southcentral part of the country.

## HESPERIINAE

*Gegenes nostrodamus* (Fabricius, 1793) (Fig. 9)

Syunik Province ([17]). Known only from extreme south Armenia (DIDMANIDZE, 2004: 201; TSHIKOLOVETS & NEKRUTENKO, 2012: 50).

*Eogenes alcides* (Herrich-Schäffer, [1852])

Ararat Province ([7]); Syunik Province ([17]); Vayots Dzor Province ([24]). Known only from Khosrov Nature Reserve and extreme south Armenia (TUZOV *et al.*, 1997: 126, 425; TSHIKOLOVETS & NEKRUTENKO, 2012: 51).

*Thymelicus hyrax* (Lederer, 1861)

Ararat Province ([7]); Vayots Dzor Province ([25]; [26]; [28]). Until now the only relatively precise locality in Armenia was Khosrov Nature Reserve (TSHIKOLOVETS & NEKRUTENKO, 2012: 53). First records for Vayots Dzor Province.

*Thymelicus lineola* (Ochsenheimer, 1808)

Ararat Province ([3]; [7]); Syunik Province ([16]); Vayots Dzor Province ([26]). Known from extreme south and central Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 53).

*Thymelicus sylvestris* (Poda, 1761)

Ararat Province ([42]); Syunik Province ([16]; [19]; [20]; [22]); Vayots Dzor Province ([29]); Gegharkunik Province ([40]). Known from extreme south and central Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 52), our data extend the species distribution to Sevan Mounts.

*Ochlodes sylvanus* (Esper, [1779])

Ararat Province ([7]); Syunik Province ([15]; [20]); Vayots Dzor Province ([24]; [26]; [29]); Kotayk Province ([41]). Known from extreme south and central Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 54). First records for Pambak Mts and Vayots Dzor Province.

#### PAPILIONIDAE

##### PAPILIONINAE

*Papilio machaon* Linnaeus, 1758

Syunik Province ([10]; [21]); Vayots Dzor Province ([24]; [34]). Known from central and south Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 59). First records for Vayots Dzor Province.

*Papilio alexanor* Esper, [1800]

Vayots Dzor Province ([8]). Known from central and south Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 59).

*Iphiclides podalirius* (Linnaeus, 1758)

Ararat Province ([4]); Vayots Dzor Province ([26]; [29]; [34]); Kotayk Province ([43]). Known from extreme south and central Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 61). First records for Vayots Dzor Province.

#### PARNASSIINAE

*Parnassius mnemosyne* (Linnaeus, 1758)

Syunik Province ([20]); Kotayk Province ([41]). Widespread in Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 64).

#### PIERIDAE

##### DISMORPHIINAE

*Leptidea duponcheli* (Staudinger, 1871)

Vayots Dzor Province ([26]; [30]; [31]; [32]; [33]; [34]); Gegharkunik Province ([35]). Widespread in central and southern Armenia (EMMEL *et al.*, 1996: 41; AGHABABYAN & KHANAMIRIAN, 2011: 71; TSHIKOLOVETS & NEKRUTENKO, 2012: 75).

*Leptidea sinapis* (Linnaeus, 1758)

Syunik Province ([20]); Vayots Dzor Province ([26]); Gegharkunik Province ([38]). Reported from extreme south and Yeghegnadzor (TSHIKOLOVETS & NEKRUTENKO, 2012: 73). First record for Gegharkunik Province (Sevan Mounts).

#### PIERINAE

*Anthocharis cardamines* (Linnaeus, 1758)

Ararat Province ([42]); Syunik Province ([20]); Vayots Dzor Province ([29]); Gegharkunik Province ([35]; [38]; [40]); Kotayk Province ([41]). Known from central and southern Armenia and the shore of Sevan Lake (TSHIKOLOVETS & NEKRUTENKO, 2012: 76). First records for Vayots Dzor and Gegharkunik Provinces.

*Anthocharis damone* Boisduval, 1836 (Fig. 10)

Ararat Province ([42]); Vayots Dzor Province ([33]); Gegharkunik Province ([38]; [40]); Kotayk

Province ([41]). Known from central Armenia and the shore of Sevan Lake (TSHIKOLOVETS & NEKRUTENKO, 2012: 78). First records for Vayots Dzor Province and Sevan Mounts.

*Euchloe ausonia* (Hübner, [1804])

Ararat Province ([5]); Syunik Province ([10]); Vayots Dzor Province ([24]; [29]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 80). First record for Vayots Dzor Province.

*Pieris rapae* (Linnaeus, 1758)

Armavir Province ([1]); Ararat Province ([2]; [7]); Syunik Province ([16]; [17]; [18]); Gegharkunik Province ([38]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 82). First records for Gegharkunik Province (Sevan Mounts).

*Pieris mannii* (Mayer, 1851) (Fig. 11)

Syunik Province ([17]; [18]; [19]). Confirmed species for Armenia, listed as unconfirmed in TSHIKOLOVETS & NEKRUTENKO (2012: 316). Reports in DIDMANIDZE (2004: 204) from Khosrov Reserve, Goravan, Megri and Gudermis and ZARIKIAN (2017: 824) from Mount Aragats are doubtful. It seems that the species distribution in Armenia is restricted to southernmost part of the country.

*Pieris ergane* (Geyer, [1828])

Vayots Dzor Province ([24]; [26]; [30]; [31]; [34]); Gegharkunik Province ([40]). Known from extreme south and central Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 83). First record for Gegharkunik Province (Sevan Mounts).

*Pieris napi* (Linnaeus, 1758)

Syunik Province ([20]); Vayots Dzor Province ([26]; [28]; [29]); Gegharkunik Province ([40]); Kotayk Province ([43] Azat Gorge to Garni Village). Widespread in Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 84).

*Pieris bowdeni* Eitschberger, [1984]

Vayots Dzor Province ([9]). Known from Khosrov Reserve and Kajaran Pass [= Meghri Pass] (TSHIKOLOVETS & NEKRUTENKO, 2012: 83). First record for Vayots Dzor Province.

*Pieris brassicae* (Linnaeus, 1758)

Armavir Province ([1]); Syunik Province ([10]; [20]); Vayots Dzor Province ([34]); Gegharkunik Province ([35]; [40]); Kotayk Province ([41]; [43]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 82). First records for Vayots Dzor Province.

*Pontia edusa* (Fabricius, 1777)

Ararat Province ([5]; [6]; [7]); Syunik Province ([17]; [18]); Vayots Dzor Province ([24]; [32]; [34]); Gegharkunik Province ([37]); Kotayk Province ([43]). Known from central and southern Armenia and the shore of Sevan Lake (TSHIKOLOVETS & NEKRUTENKO, 2012: 89, as *Pontia daplidice* (Linnaeus, 1758)). First record for Vayots Dzor Province.

*Aporia crataegi* (Linnaeus, 1758)

Ararat Province ([3]; [7]; [42]); Syunik Province ([14]; [16]; [18]; [19]; [20]; [21]; [22]); Vayots Dzor Province ([23]; [24]; [26]; [27]; [28]; [29]; [30]; [32]; [34]). Known from extreme south and central Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 91). First records for Vayots Dzor Province.



## COLIADINAE

*Colias thisoa* Ménétriés, 1832

Vayots Dzor Province ([32]). Known from NW, central and southern Armenia (TUZOV *et al.*, 1997: 175, 439; AGHABABYAN & KHANAMIRIAN, 2011: 71; TSHIKOLOVETS & NEKRUTENKO, 2012: 101). First record for Vayots Dzor Province.

*Colias croceus* (Geoffroy, 1758 in Fourcroy)

Armavir Province ([1]); Ararat Province ([2]; [5]; [6]; [7]); Syunik Province ([10]; [14]; [17]; [18]; [19]; [21]; [22]); Vayots Dzor Province ([28]; [29]; [32]; [33]; [34]); Gegharkunik Province ([37]; [38]; [40]); Kotayk Province ([41]; [43]). Widespread in Armenia except northernmost part (TSHIKOLOVETS & NEKRUTENKO, 2012: 95).

*Colias alfacariensis* Ribbe, 1905

Vayots Dzor Province ([9]); Gegharkunik Province ([35]; [40]). Widespread in Armenia except northernmost part (TSHIKOLOVETS & NEKRUTENKO, 2012: 93).

*Colias aurorina* Herrich-Schäffer, [1850]

Syunik Province ([10]; [14]; [20]); Vayots Dzor Province ([26]). Widespread in Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 98).

*Gonepteryx farinosa* (Zeller, 1847)

Ararat Province ([7]; [42]); Syunik Province (S of Chakaten Village, meadows in an oak wood, 1002 m, 39.1434391 N, 46.4609651 E, 10-VI-2017, N. Simov leg.); Vayots Dzor Province ([24]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 104). First record for Vayots Dzor Province.

LYCAENIDAE  
THECLINAE*Satyrium (Satyrium) abdominalis* (Gerhard, [1850])

Ararat Province ([7]); Syunik Province ([19]); Vayots Dzor Province ([24]; S of Arpi Village, steppe slopes with shrubs, 1315 m, 39.7257541N, 45.2462251E, 8-VI-2017, N. Simov leg.; [26]; [28]); Kotayk Province ([43]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 110). First records for Vayots Dzor Province.

*Satyrium (Satyrium) spini* ([Denis & Schiffermüller], 1775)

Syunik Province ([18]; [19]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 111).

*Satyrium (Satyrium) w-album* (Knoch, 1782)

Ararat Province ([7]). Known from central and (?) southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 108).

*Satyrium (Armenia) ledereri* (Boisduval, 1848)

Ararat Province ([5]); Vayots Dzor Province ([24]; [26]; [30]). Known from central and extreme south Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 113). First records for Vayots Dzor Province.

*Satyrium (Armenia) hyrcanicum* (Riley, 1939) (Fig. 12)

Syunik Province ([13]); Vayots Dzor Province ([24]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 113). First record for Vayots Dzor Province.

*Callophrys rubi* (Linnaeus, 1758)

Syunik Province ([21]); Vayots Dzor Province ([30]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 114). First record for Vayots Dzor Province.

*Callophrys paulae* Pfeiffer, 1932 (Fig. 13)

Vayots Dzor Province ([32]; [33]; [34]). Known from central and southern Armenia (EMMEL *et al.*, 1996: 41; TEN HAGEN & MILLER, 2010: 183; AGHABABYAN & KHANAMIRIAN, 2011: 74; TSHIKOLOVETS & NEKRUTENKO, 2012: 116).

*Callophrys suaveola* (Staudinger, 1881)

Ararat Province ([7]); Syunik Province ([20]); Vayots Dzor Province ([28]; [29]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 117).

*Tomares romanovi* (Christoph, 1882) (Fig. 14)

Ararat Province ([7]); Syunik Province ([19]); Vayots Dzor Province (S of Vayk Village, steppe slopes with shrubs and riverbank wood, 1265 m, 39.6846501N, 45.4679411E, 8-VI-2017, N. Simov leg.; [28]; [30]). Known from central Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 119). First records for Vayots Dzor and Syunik Provinces.

## LYCAENINAE

*Lycaena (Lycaena) phlaeas* (Linnaeus, 1761)

Ararat Province ([3]; [7]); Syunik Province ([14]; [19]; [20]); Vayots Dzor Province ([8]; [29]); Kotayk Province ([43]). Widespread in Armenia except northernmost part (TSHIKOLOVETS & NEKRUTENKO, 2012: 121).

*Lycaena (Paleochrysophanus) candens* (Herrich-Schäffer, [1844])

Syunik Province (Meghri Pass, subalpine meadows, 2150 m, 39.1349671N, 046.1784251E, 11-VI-2017, N. Simov leg.). Known from central and southern Armenia (EMMEL *et al.*, 1996: 41; TUZOV *et al.*, 2000: 439; TSHIKOLOVETS & NEKRUTENKO, 2012: 132).

*Lycaena (Alciphronia) alciphron* (Rottemburg, 1775)

Vayots Dzor Province ([29]); Gegharkunik Province ([40]); Kotayk Province ([43]). Known from central-western and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 129). First records for Vayots Dzor and Gegharkunik (Sevan Mt) Provinces.

*Lycaena (Thersamonia) thersamon* (Esper, [1784])

Vayots Dzor Province ([32]); Gegharkunik Province ([40]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 125). First records for Vayots Dzor Province and Sevan Mopunts.

*Lycaena (Thersamonia) asabinus* (Herrich-Schäffer, [1851]) (Fig. 15)

Ararat Province ([7]); Vayots Dzor Province ([25]; [26]; [29]; [34]); Gegharkunik Province ([35]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 126).

*Lycaena (Thersamonia) ochimus* (Herrich-Schäffer, [1851])

Ararat Province ([7]); Vayots Dzor Province ([34]); Gegharkunik Province ([35]). In all the localities occurs together with *Lycaena asabinus*. Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 127), our data extend the species distribution to Vardenis Mountains.

*Lycaena (Loweia) tityrus* (Poda, 1761)

Syunik Province ([16]; [20]); Vayots Dzor Province ([29]; [34]); Gegharkunik Province ([36]); Kotayk Province ([41]). Known from Pambak Mts, Khosrov Reserve and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 123). First records for Vayots Dzor Province and Vardenis Mounts.

*Lycaena (Athamanthia) phoenicura* (Lederer, 1870) (Fig. 16)

Syunik Province ([13]). Known from southern Armenia only (TUZOV *et al.*, 2000: 131, 440; TSHIKOLOVETS & NEKRUTENKO, 2012: 124).

#### POLYOMMATINAE

*Tarucus balkanicus* (Freyer, [1844])

Syunik Province ([14]; [17]). Known from southern Armenia only (TUZOV *et al.*, 2000: 138, 441; TSHIKOLOVETS & NEKRUTENKO, 2012: 135).

*Celastrina argiolus* (Linnaeus, 1758)

Armavir Province ([1]); Syunik Province ([18]; [20]); Vayots Dzor Province ([23]; [30]); Kotayk Province ([41]; [43]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 137), our data extend the species distribution to Vardenis Mts and Sevan Mounts.

*Cupido osiris* (Meigen, [1829])

Ararat Province ([4]); Syunik Province ([16]; [20]); Vayots Dzor Province ([26]; [29]; [30]; [31]; [34]); Gegharkunik Province ([40]); Kotayk Province ([41]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 141). First records for Vardenis Mts and Sevan Mounts.

*Cupido minimus* (Füessly, 1775)

Gegharkunik Province ([38]; [40]). Known from central and extreme south Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 140), our data extend the species distribution to Sevan Mounts.

*Iolana iolas* (Ochsenheimer, 1816)

Syunik Province ([21]). Known from extreme south Armenia only (TUZOV *et al.*, 2000: 446; TSHIKOLOVETS & NEKRUTENKO, 2012: 143), our data extend the species distribution further north.

*Glaucopsyche alexis* (Poda, 1761)

Ararat Province ([3]; [4]; [7]; [42]); Syunik Province ([10]; [16]; [20]); Vayots Dzor Province ([26]; [29]; [32]); Gegharkunik Province ([40]); Kotayk Province ([41]). Widespread in Armenia except northernmost part (TSHIKOLOVETS & NEKRUTENKO, 2012: 144).

*Pseudophilotes bavius* (Eversmann, 1832)

Vayots Dzor Province ([26]; [32]). Known from the region SW of Yeghegnadzor only (TSHIKOLOVETS & NEKRUTENKO, 2012: 149).

*Pseudophilotes vicrama* (Moore, 1865)

Ararat Province ([3]); Syunik Province ([14]; [18]); Vayots Dzor Province ([26]). Known from central and extreme south Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 150). First record for Vayots Dzor Province.

*Turanana endymion* (Freyer, [1850])

Ararat Province ([2]; [42]); Vayots Dzor Province ([29]). Known from Khosrov Reserve, Yerevan surroundings, Yelpin and Meghri (EMMEL *et al.*, 1996: 41; MORGUN & TIKHONOV, 2010: 333; TSHIKOLOVETS & NEKRUTENKO, 2012: 141).

*Plebejus (Plebejides) modicus* Verity, 1935 (Fig. 17)

Ararat Province ([42]); Syunik Province ([20]); Vayots Dzor Province ([25]; [26]; [29]); Gegharkunik Province ([39]; [40]). Taxonomic status of the Caucasian populations has been recently clarified (STRADOMSKY & TIKHONOV, 2015: 185-186). Known from central and southern Armenia (BÁLINT, 1991: 51, as *Plebejus sephirus semiturcmenicus* ssp. n.; TSHIKOLOVETS & NEKRUTENKO, 2012: 157, as *Plebejus zephyrinus* (Christoph, 1884)), our data extend the species distribution further north to Sevan Mounts.

*Plebejus (Plebejus) argus* (Linnaeus, 1758)

Syunik Province ([10]); Gegharkunik Province ([37]; [38]; [39]). Widespread in Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 151).

*Plebejus (Plebejus) christophi* (Staudinger, 1874) (Fig. 18)

Ararat Province ([2]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 153).

*Plebejus (Plebejus) idas* (Linnaeus, 1761)

Ararat Province ([42]). Widespread in central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 154-155).

*Plebejus (Kretania) eurypilus* (Freyer, [1851])

Ararat Province ([42]). Widespread in central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 159).

*Plebejus (Vacciniina) morgianus* (Kirby, 1871) (Figs. 19-20)

Vayots Dzor Province ([30]). **New species for Armenia**, previously known from the same mountain massif but in Nakhchivan (NEKRUTENKO, 1985: 87, as *Vacciniina hyrcana* (Lederer, 1870); SKALA & WEIDENHOFFER, 2002: 413). It seems its distribution in Armenia is restricted to Vike Mounts (Ayots Dzor/Daralagez Mts) only.

*Plebejus (Agriades) dardanus* (Freyer, [1844])

Gegharkunik Province ([39]; [40]). Known from high mountains in northern and southern Armenia (NEKRUTENKO, 1974: 283-286, as *Plebejus pyrenaicus latedisjunctus* Alberti, 1973; TSHIKOLOVETS & NEKRUTENKO, 2012: 169, as *Plebejus pyrenaicus dardanus*), our data extend the species distribution to Sevan Mounts.

*Plebejus (Aricia) agestis* ([Denis & Schiffermüller], 1775)

Ararat Province ([2]; [3]; [6]; [7]); Syunik Province ([11]; [14]; [18]; [19]; [21]; [22]); Vayots Dzor Province ([23]; [24]; [25]; [26]; [28]; [29]; [30]; [34]); Gegharkunik Province ([35]; [38]; [40]); Kotayk Province ([43]). Widespread in Armenia except northernmost part (TSHIKOLOVETS & NEKRUTENKO, 2012: 164).

*Plebejus (Eumedonia) eumedon* (Esper, [1780])

Gegharkunik Province ([38]). Known from centralnorthern and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 162).

*Polyommatus (Cyaniris) semiargus* (Rottemburg, 1775)

Ararat Province ([3]; [7]; [42]); Vayots Dzor Province ([26]; [31]; [32]); Gegharkunik Province ([36]; [39]; [40]); Kotayk Province ([41]). Widespread in Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 172), our data extend the species distribution to Vardenis Mounts and Sevan Mounts.

*Polyommatus (Neolysandra) coelestinus* (Eversmann, 1843)

Vayots Dzor Province ([25]; [26]; [28]; [29]; [30]; [31]; [32]; [33]; [34]); Gegharkunik Province ([35]; [37]; [38]; [40]). Widespread in central Armenia and in southern part occurs near Gyumorats (TSHIKOLOVETS & NEKRUTENKO, 2012: 170; AGHABABYAN & KHANAMIRIAN, 2011: 75, as *Polyommatus alicola* (Christoph, 1893)).

*Polyommatus (Plebicula) amandus* (Schneider, [1792])

Ararat Province ([3]; [7]; [42]); Syunik Province ([16]; [18]; [20]); Vayots Dzor Province ([25]; [26]; [27]; [28]; [29]; [32]; [33]; [34]); Gegharkunik Province ([35]; [37]; [38]). Widespread in Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 176), our data extend the species distribution to Sevan Mounts.

*Polyommatus (Plebicula) thersites* (Cantener, [1835])

Ararat Province ([3]; [4]); Syunik Province ([14]; [20]; [22]); Vayots Dzor Province ([26]; [32]; [34]); Gegharkunik Province ([38]; [40]). Known from central and extreme southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 173), our data extend the species distribution to Vardenis Mounts and Sevan Mounts.

*Polyommatus (Polyommatus) icarus* (Rottemburg, 1775)

Ararat Province ([4]; [6]; [7]); Syunik Province (W of Goris, meadow, 1740 m, 39.4915011N, 46.2993621E, 09-VI-2017, N. Simov leg.; [14] W of Meghri; [16]; [17]; [18]; [19]; [21]; [22]); Vayots Dzor Province ([26]; [34]); Gegharkunik Province ([35]; [37]; [38]); Kotayk Province ([43]). Widespread in Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 184), our data extend the species distribution to Sevan Mounts.

*Polyommatus (Lysandra) bellargus* (Rottemburg, 1775)

Ararat Province ([4]; [7]); Syunik Province ([16]; [22]); Vayots Dzor Province ([30]; [32]; [34]); Gegharkunik Province ([35]; [38]; [40]); Kotayk Province ([43]). Widespread in Armenia except northernmost part (TSHIKOLOVETS & NEKRUTENKO, 2012: 178), our data extend the species distribution to Sevan Mounts.

NYMPHALIDAE  
LIBYTHEINAE

*Libythea celtis* (Laicharting, 1782)

Ararat Province ([42]); Syunik Province ([17]; [19]; [20]); Vayots Dzor Province ([24]; [25]; [26]; [28]; [29]; [30]; [34]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 208), our data extend the species distribution to Vardenis Mounts.

## SATYRINAE

*Melanargia russiae* (Esper, [1783])

Vayots Dzor Province (S of Arpi Village, steppe slopes with shrubs, 1315 m, 39.7257541N, 45.2462251E, 8-VI-2017, N. Simov leg.; [8]). Known from Khosrov Reserve, Geghadir, Selim Pass and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 209).

*Melanargia larissa* (Geyer, [1828])

Ararat Province ([2]; [5]; [7]); Syunik Province ([13]; [14]; [18]; [19]; [20]); Vayots Dzor Province ([25]; [26]; [28]; [30]); Kotayk Province ([43]). Widespread in Armenia except northernmost part (TSHIKOLOVETS & NEKRUTENKO, 2012: 210).

*Erebia medusa* ([Denis & Schiffermüller], 1775)

Vayots Dzor Province ([32]); Gegharkunik Province ([35]; [38]; [40]); Kotayk Province ([41]; [43]). Known from the mountains in central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 218), our data extend the species distribution to Sevan Mounts.

*Coenonympha arcania* (Linnaeus, 1761)

Vayots Dzor Province ([29]). Known from vicinity of the border with Nakhchivan (Nakhichevan) in Central and Southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 228).

*Coenonympha leander* (Esper, [1784])

Gegharkunik Province ([35]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 224), our data extend the species distribution to Vardenis Mounts.

*Coenonympha saadi* (Kollar, [1849]) (Fig. 21)

Ararat Province ([2]); Syunik Province ([14]; [17]; [18]; [19]); Vayots Dzor Province ([24]; [26]; [28]; [30]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 229).

*Coenonympha pamphilus* (Linnaeus, 1758)

Ararat Province ([3]; [4]; [6]; [7]); Syunik Province (W of Goris, meadow, 1740 m, 39.491501EN, 46.299362EE, 09-VI-2017, N. Simov leg.); Vayots Dzor Province ([29]; [31]; [34]); Gegharkunik Province ([37]; [38]; [40]); Kotayk Province ([43]). Widespread in Armenia except northernmost part (TSHIKOLOVETS & NEKRUTENKO, 2012: 223).

*Lasiommata maera* (Linnaeus, 1758)

Syunik Province ([14]; [19]); Vayots Dzor Province ([34]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 231), our data extend the species distribution to Vardenis Mounts.

*Lasiommata megera* (Linnaeus, 1767)

Ararat Province ([6]; [7]); Syunik Province ([14]; [15]; [17]). Widespread in Armenia except northernmost part (TSHIKOLOVETS & NEKRUTENKO, 2012: 234).

*Maniola jurtina* (Linnaeus, 1758)

Syunik Province ([12]; [14]; [15]; [16]; [17]; [21]; [22]); Kotayk Province ([43]). Widespread in Armenia except northernmost part (TSHIKOLOVETS & NEKRUTENKO, 2012: 238).

*Hyponephele lupina* (Costa, [1836])

Armavir Province ([1]); Ararat Province ([2]); Syunik Province ([12]; [19]); Vayots Dzor Province ([24]). Widespread in Armenia except northernmost part (TSHIKOLOVETS & NEKRUTENKO, 2012: 239).

*Hipparchia* (*Parahipparchia*) *pellucida* (Stauder, 1923)

Ararat Province ([2]); Syunik Province ([14]; [15]; [17]; [19]); Vayots Dzor Province ([29]). Known from Khosrov Reserve, Yeghegnadzor and southern Armenia, where is widespread (TSHIKOLOVETS & NEKRUTENKO, 2012: 249).

*Chazara briseis* (Linnaeus, 1764)

Syunik Province ([13]; [18]; [19]). Widespread in Armenia except northernmost part (TSHIKOLOVETS & NEKRUTENKO, 2012: 260-261).

*Chazara persephone* (Hübner, [1805])

Ararat Province ([2]). Widespread in Armenia except northernmost part (TSHIKOLOVETS & NEKRUTENKO, 2012: 262).

*Satyrus amasinus* Staudinger, 1861

Ararat Province ([7]); Syunik Province ([13]; [14]); Vayots Dzor Province ([25]; [28]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 264).

#### APATURINAE

*Thaleropsis ionia* (Eversmann, 1851)

Ararat Province ([42]); Vayots Dzor Province ([26]; [29]; [30]). Widespread in Armenia except northernmost part (TSHIKOLOVETS & NEKRUTENKO, 2012: 269).

#### LIMENTIDINAE

*Limenitis reducta* Staudinger, 1901

Ararat Province ([42]); Syunik Province ([14]; [17]; [20]); Vayots Dzor Province ([25]; [26]; [27]; [28]; [29]; [34]). Widespread in Armenia except northernmost part (TSHIKOLOVETS & NEKRUTENKO, 2012: 270), our data extend the species distribution to Vardenis Mounts.

*Neptis rivularis* (Scopoli, 1763)

Ararat Province ([7]; [42]); Vayots Dzor Province ([26]; [28]; [29]; [30]; [34]). Widespread in Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 273).

#### NYMPHALINAE

*Polygonia c-album* (Linnaeus, 1758)

Ararat Province ([42]); Syunik Province ([22]). Known from Arzakan, Khosrov Reserve and southern Armenia, where is widespread (TSHIKOLOVETS & NEKRUTENKO, 2012: 274).

*Polygonia egea* (Cramer, [1775])

Vayots Dzor Province ([30]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 275).

*Nymphalis polychloros* (Linnaeus, 1758)

Syunik Province ([17]; [20]); Gegharkunik Province ([40]); Kotayk Province ([41]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 277). First record for Sevan Mounts.

*Vanessa (Vanessa) atalanta* (Linnaeus, 1758)

Syunik Province ([22]). Known from Khosrov Reserve and southern Armenia, where is widespread (TSHIKOLOVETS & NEKRUTENKO, 2012: 279).

*Vanessa (Cynthia) cardui* (Linnaeus, 1758)

Syunik Province ([11]; [20]); Vayots Dzor Province ([26]; [28]; [32]; [34]); Gegharkunik Province



([37]; [40]); Kotayk Province ([43]). Known from central and southern Armenia, where is widespread (TSHIKOLOVETS & NEKRUTENKO, 2012: 279).

*Aglais urticae* (Linnaeus, 1758)

Armavir Province ([1]); Ararat Province ([42]); Syunik Province ([10]; [11]; [20]); Vayots Dzor Province ([9]; [26]; [27]; [29]; [30]; [32]; [34]); Gegharkunik Province ([36]; [37]; [40]). Known from central Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 280). First records for Syunik Province, Vardenis Mounts and Sevan Mounts.

## MELITAEINAE

*Melitaea (Melitaea) phoebe* ([Denis & Schiffermüller], 1775)

Syunik Province ([15]; [16]); Vayots Dzor Province ([34]). Widespread in Armenia except northernmost part (TSHIKOLOVETS & NEKRUTENKO, 2012: 238). First record for Vardenis Mounts.

*Melitaea (Melitaea) ornata* Christoph, 1893

Ararat Province ([7]; [42]); Syunik Province ([14]; [19]); Vayots Dzor Province ([26]; [29]; [30]; [34]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 295). First record for Vardenis Mounts.

*Melitaea (Melitaea) didyma* (Esper, [1778])

Ararat Province ([3]; [4]; [6]); Syunik Province ([20]); Vayots Dzor Province ([34]). Known from central and (?) southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 289).

*Melitaea (Melitaea) interrupta* Kolenati, 1846 (Fig. 22)

Ararat Province ([4]); Syunik Province ([16]; [20]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 290).

*Melitaea (Melitaea) persea* Kollar, 1849 (Fig. 23)

Ararat Province ([2]; [6]; [7]); Vayots Dzor Province ([24]; [30]). Known from semidesert and arid steppe habitats in central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 292).

*Melitaea (Melitaea) arduinna* (Esper, [1783])

Ararat Province ([3]; [7]; [42]); Vayots Dzor Province ([25]; [26]; [28]; [29]; S of Gndevaz Village, wooded steppe slopes with shrubs, 1370 m, 39.7120161N, 45.5727101E, 13-VI-2017, N. Simov leg.; [34]). Known from central Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 297), records from southern part of the country requires confirmation (MEGHRI in DIDMANIDZE, 2004: 214).

*Melitaea (Melitaea) cinxia* (Linnaeus, 1758)

Ararat Province ([7]); Syunik Province ([20]); Vayots Dzor Province ([26]; [29]; [33]; [34]); Gegharkunik Province ([35]; [36]; [37]; [38]; [40]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 295). First records for Vardenis Mounts and Sevan Mounts.

*Melitaea (Melicta) athalia* (Rottemburg, 1775)

Gegharkunik Province ([35]; [38]). Known from Alibek Mt (Meghradzor Reserve) only (TSHIKOLOVETS & NEKRUTENKO, 2012: 286). First records for Gegharkunik Province (Sevan Mounts).



*Melitaea (Melicta) caucasogenita* Verity, 1930 (Fig. 24)

Gegharkunik Province (E Dprabak Village, near Getik River, meadows in oak wood, 1270 m, 40.6862421N, 45.1455021E, 15-VI-2017, N. Simov leg.). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 287). First records for Sevan Mounts.

*Euphydryas aurinia* (Rottemburg, 1775)

Syunik Province ([20]); Vayots Dzor Province ([26]; [29]; [33]; [34]); Gegharkunik Province ([35]; [40]); Kotayk Province ([41]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 284-285), our data extend the species distribution to Sevan Mounts.

## HELICONIINAE

*Argynnis (Fabriciana) niobe* (Linnaeus, 1758)

Ararat Province ([4]; [7]); Syunik Province ([15]; [16]; [17]; [19]; [20]); Vayots Dzor Province ([26]; [28]; [29]; [30]; [34]). Known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 300). First record for Vardenis Mounts.

*Argynnis (Fabriciana) adippe* ([Denis & Schiffermüller], 1775)

Syunik Province ([14]; [16]); Vayots Dzor Province ([30]). Known from Pambak Mts, Khosrov Reserve and southern Armenia (EMMEL *et al.*, 1996: 41; AGHABABYAN & KHANAMIRIAN, 2011: 74; TSHIKOLOVETS & NEKRUTENKO, 2012: 302). First records for Vayots Dzor Province.

*Argynnis (Argynnis) paphia* (Linnaeus, 1758)

Ararat Province ([7]); Syunik Province ([20]). Relatively widespread-known from Pambak Mounts, central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 299).

*Argynnis (Pandoriana) pandora* ([Denis & Schiffermüller], 1775)

Ararat Province ([2]; [7]); Syunik Province ([14]); Vayots Dzor Province ([24]; [25]; [26]; [28]; [29]; [30]); Gegharkunik Province ([40]); Kotayk Province ([43]). Relatively widespread-known from central and southern Armenia (TSHIKOLOVETS & NEKRUTENKO, 2012: 305). First record for Sevan Mounts.

*Issoria lathonia* (Linnaeus, 1758)

Ararat Province ([4]; [7]); Syunik Province ([10]; [14]; [17]; [22]); Vayots Dzor Province ([24]; [26]; [29]; [30]; [32]); Gegharkunik Province ([37]; [40]); Kotayk Province ([43]). Relatively widespread-known from Khosrov Reserve and Garni in central Armenia and more than 15 localities in southern (EMMEL *et al.*, 1996: 41; AGHABABYAN & KHANAMIRIAN, 2011: 74; TSHIKOLOVETS & NEKRUTENKO, 2012: 309). First records for Vayots Dzor Province and Sevan Mounts.

*Clossiana euphrosyne* (Linnaeus, 1758)

Gegharkunik Province ([38]). Reported from extreme south and Aghveran (AGHABABYAN & KHANAMIRIAN, 2011: 74; TSHIKOLOVETS & NEKRUTENKO, 2012: 311). First record for Gegharkunik Province (Sevan Mounts).

## Discussion

With the two new records, the butterflies of Armenia currently include 238 species. The total number of the species encountered during the survey (124 species) representing roughly 52% of the Armenian fauna. Given the fact that my visit was limited to end of May-beginning of June, thus excluding most of the late flying satyrids and some of the blues, the number of encountered species

could be considered exceptionally high. A more systematic approach is needed with future surveys combined with covering practically unexplored northern part of the country.

ZARIKIAN & KALASHIAN (2018) reported three new species for the Armenian fauna- *Zerynthia caucasica* (Lederer, 1864), *Kirinia roxelana* (Cramer, [1777]) and *Melanargia grumi* Standfuss, 1892. In the case of *Zerynthia caucasica* there is a misdetermination-in fact the picture shows *Zerynthia deyrollei* (Oberthür, 1869), distinguished by its longer tails at the end of vein 4 on the hind-wing. The closest record of the species to Armenia is a single old one from Ispir (Erzurum Province, NE Turkey; May 1975: HESSELBARTH *et al.*, 1995: 251), situated more than 320 km by the air. All other Turkish records are from SE part of the country (south of Van Lake-more than 350 km). Concerning *Kirinia roxelana* there is only circumstantial evidence of mislabeling or error, because the absence of suitable habitat in the area where specimens have supposedly been collected (“stony slopes of a hill near ‘Khor virap’ state sanctuary”). The closest record is from Çoruh River Valley (Artvin Province, NE Turkey: HESSELBARTH *et al.*, 1995: 771), situated at about 280 km by the air. All other Turkish records are situated again south of Van Lake. The case of *Melanargia grumi* is similar-not typical habitat in the area where specimens have supposedly been collected (“woodland clearing”) and again the closest records are situated south of Van Lake (Hakkâri, Şırnak, Siirt, Bitlis, Van Provinces in SE Turkey: HESSELBARTH *et al.*, 1995: 873), situated at about 300 km by the air. In two other articles first author used two different pictures taken in the nature, one of which (ZARIKIAN, 2016: 521, Fig. 6) is from the site of The Butterflies Monitoring & Photography Society in Turkey (AdaMerOS-BUTTERFLIES OF TURKEY) and is taken in Mardin Province by Seyithan Bozdemir. Recent research revealed similarity of the species with *Melanargia larissa* and changed its taxonomic status-now is a subspecies of the latter: *Melanargia larissa grumi* Standfuss, 1892 (NAZARI, 2010). Some of the places, stated as collecting localities of such large butterflies (e.g. Khor Virap and Tsaghkadzor), are relatively well-studied by other lepidopterists but there is no indication of the mentioned species. Thus, the locality data of these three species must be considered highly suspect pending further information and preferably disregarded altogether so far.

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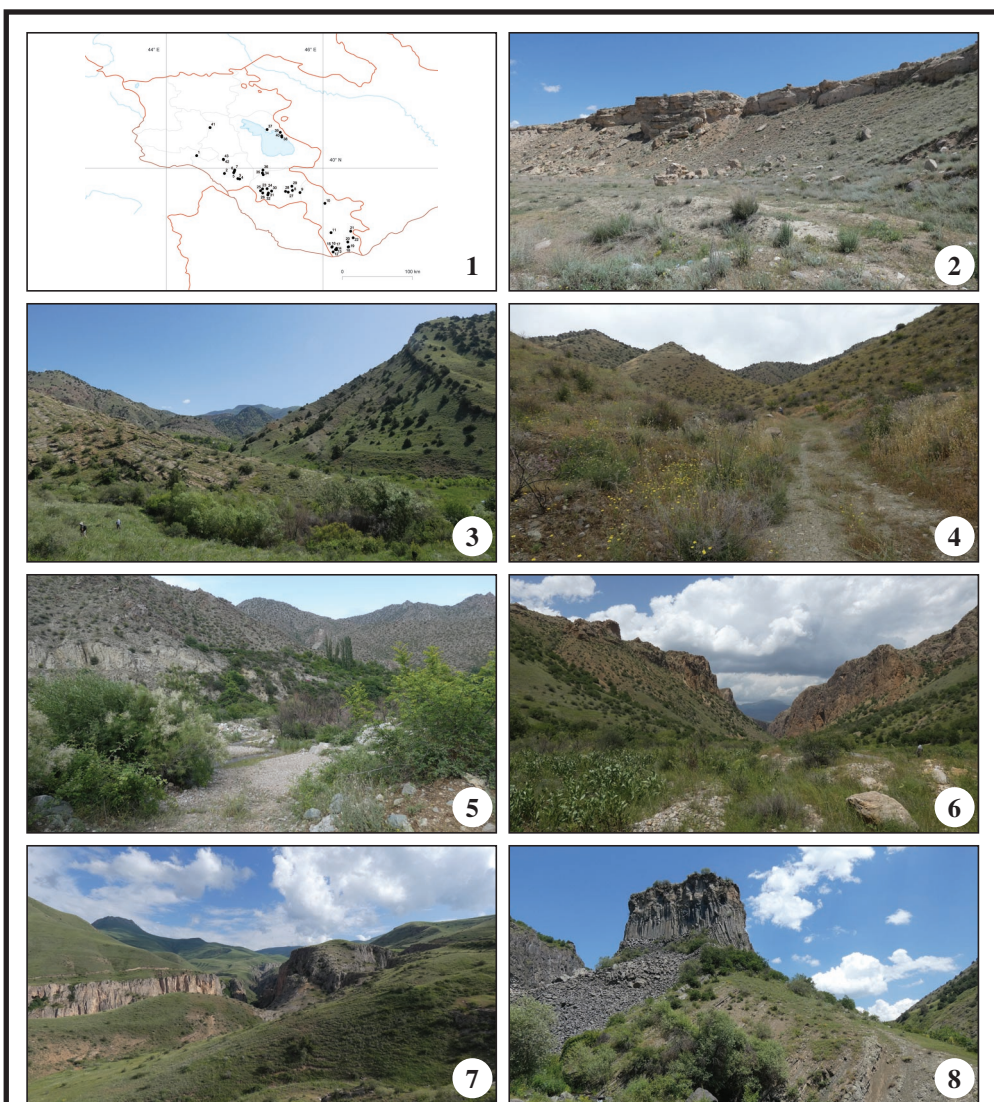
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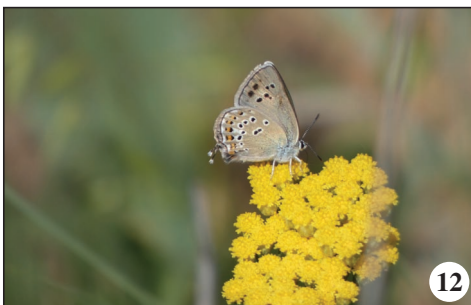
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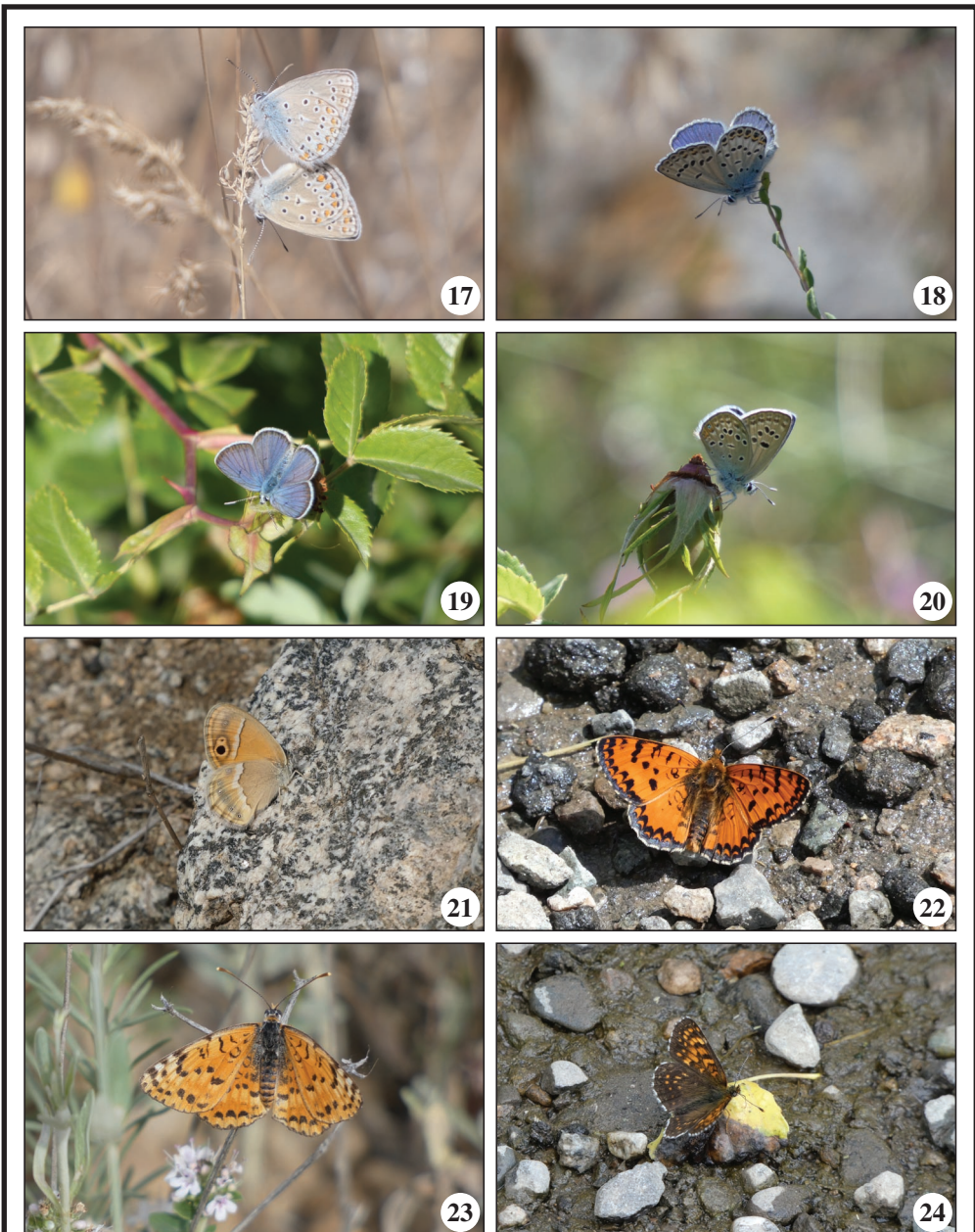


**Figures 1-8.**— 1. Map of localities (numbered as waypoints) visited during the expedition. 2. [2] Barakaghbyur Valley, N of Dashtakar Village, habitat of *T. endymion*, *P. christophi*, *C. saadi*, *H. lupina*, *H. pellucida*, *Ch. persephone*, *M. perse*. 3. [7] Khosrov Forest State Reserve, habitat of *E. alcides*, *Th. hyrax*, *G. farinosa*, *S. abdominalis*, *T. romanovi*, *M. larissa*, *S. amasinus*, *M. arduinna*. 4. [13 & 14] near Meghri, habitat of *C. stauderi*, *S. hyrcanicum*, *L. phoenicura*, *C. saadi*, *H. pellucida*, *Ch. briseis*, *S. amasinus*. 5. [17] N of Meghri, near Meghri River, habitat of *P. mannii*, *G. nostrodamus*, *E. alcides*, *T. balkanicus*, *L. celtis*, *L. reducta*, *N. polychloros*. 6. [26] near Noravank monastery, habitat of *E. marloyi*, *P. melotis*, *Th. hyrax*, *C. aurorina*, *S. abdominalis*, *L. asabinus*, *Ps. bavius*, *Pl. modicus*, *P. coelestinus*, *Th. ionia*, *N. rivularis*, *M. arduinna*. 7. [30] Gravidzor, S of Agarakadzor, habitat of *Pl. morgianus*, *M. tessellum*, *Py. sidae*, *L. duponcheli*, *P. ergane*, *S. ledereri*, *T. romanovi*, *C. osiris*, *L. celtis*, *M. larissa*, *P. egea*. 8. [42] Azat Gorge, habitat of *E. marloyi*, *C. orientalis*, *Sp. phlomidis*, *G. farinosa*, *T. endymion*, *Pl. modicus*, *Pl. eurypilus*, *L. celtis*, *Th. ionia*, *L. reducta*, *N. rivularis*, *M. ornata*, *M. arduinna*.





**Figures 9-16.** 9. *Gegenes nostrodamus* (Fabricius, 1793). 10. *Anthocharis damone* Boisduval, 1836. 11. *Pieris mannii* (Mayer, 1851). 12. *Satyrium hyrcanicum* (Riley, 1939). 13. *Callophrys paulae* Pfeiffer, 1932. 14. *Tomares romanovi* (Christoph, 1882). 15. *Lycaena asabinus* (Herrich-Schäffer, [1851]). 16. *Lycaena phoenicura* (Lederer, 1870).



**Figures 17-24.**– 17. *Plebejus modicus* Verity, 1935. 18. *Plebejus christophi* (Staudinger, 1874). 19. *Plebejus morgianus* (Kirby, 1871). 20. *Plebejus morgianus* (Kirby, 1871). 21. *Coenonympha saadi* (Kollar, [1849]). 22. *Melitaea interrupta* Kolenati, 1846. 23. *Melitaea perseia* Kollar, 1849. 24. *Melitaea caucasogenita* Verity, 1930.