New taxa and new records of butterflies (Lepidoptera: Pieridae, Lycaenidae, Nymphalidae) from Afghanistan

VADIM TSHIKOLOVETS
Belehradska 271, 53009, Pardubice, Czech Republic. E-mail: tshikolovets@gmail.com

Abstract

Three new species Karanasa naumanni sp. nov., K. pardesi sp. nov. and K. pseudopamira sp. nov. (Nymphalidae), two new subspecies Karanasa pamira biocellata subsp. nov. (Nymphalidae) and Plebejus (Afarsia) sieversii albolunulatus subsp. nov. (Lycaenidae) are described from Afghanistan. First occurrence records for this country are presented for 26 species: one species of Pieridae (Colias thisoa), fifteen species of Lycaenidae (Deudoryx epijarbas, Everes dipora, Glaucopsyche charybdis, Hyrcana evansii, Iolana gigantea, Lycocuna kasyapa, Plebejus ferganus, Polyommatus amandus, P. dagmara, P. farazi, P. kogistanus, P. lehanus armatheus, P. miris, P. selma, and Turanana panaegides.) and ten species of Nymphalidae (Argynnis jainadeva, Coenonympha nolckeni, Hyponephele maureri, Melitaea balbina, Karanasa grumi, K. incerta, K. leechi, K. maureri, Satyrus alaica, and S. ferula)

Key words: distribution, new species, new subspecies, Palaearctic region, Rhopalocera

Introduction

Afghanistan is one of the least studied countries in the Palaearctic region for its Lepidoptera. Large endemism makes this country particularly attractive to taxonomists and researchers, but collecting of entomological material, and butterflies in particular, has always been very restricted because of military and political reasons. Nevertheless, to date, several faunal lists and reports have been published (Lang 1864; Wyatt 1961; Wyatt & Omoto 1966; Howarth & Povolný 1973, 1976; Balletto & Kudrna 1989) as well as one book devoted to the butterflies of Afghanistan (Sakai 1981).

During the preparation of the project “The Butterflies of Palaearctic Asia” which resulted in a publication of a series of books published from 1997 to 2016, 32 species of butterflies are found new for Afghanistan which I present them as a verified list at the end of this paper. My study on butterflies for “The Butterflies of Palaearctic Asia” consisted of three major activities: (1) critical analysis of all literature, related to this subject; (2) the detailed study of available collection material and (3) field research. Special attention was given to the examination of types. Almost all type specimens of butterflies described from Afghanistan, Iran, Pakistan, Turkmenistan, Uzbekistan, Tajikistan and the north-west India have been studied (Tshikolovets 1997, 1998, 2000, [2004], 2005a, b; Tshikolovets et al. 2014; Tshikolovets & Pagès 2016). As a result of this work I found that new taxa and species not yet recorded for Afghanistan are stored in the butterfly collections from the last century listed in the chapter “Material and Methods”.

In recent years, the rich material of butterflies has come from the scientific expeditions of a group of Ukrainian entomologists: O. Pak, I. Pljustch, and Y. Skrylnik. They made several trips to Afghanistan in the years 2007–2016. On the basis of this material seven new taxa of butterflies have already been described: Callophrys afghana Krupitsky, Pljushch & Pak, 2012; Callophrys succuba Krupitsky, Pljushch & Pak, 2015b; Hyponephele pagnmani Churkin, Pljushch & Samodurov, 2011; Parnassius cardinal pljushtchi Sorimachi, 2011; Satyrium hyrcanica hamiana Krupitsky, Pljushch & Pak, 2015a; Satyrium skrylniki Krupitsky, Pljushch & Pak, 2015a and Turanana durranii Coutsis & Tshikolovets, 2016. In this paper based on the recent collecting activities of the abovementioned scientific group of lepidopterists I record Polyommatus dagmara as a new species for Afghanistan.
The purpose of this paper is to present the descriptions of three new species, two new subspecies and to compile a verified and illustrative list with comments on the distribution of butterfly species which are here newly recorded from Afghanistan.

**Material and methods**

The data were obtained from the following institutional and private collections:

<table>
<thead>
<tr>
<th>Institution</th>
<th>Location</th>
<th>Collection Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>HNHM</td>
<td>Budapest, Hungary</td>
<td>Hungarian Natural History Museum (Budapest, Hungary);</td>
</tr>
<tr>
<td>MTDG</td>
<td>Dresden, Germany</td>
<td>Museum für Tierkunde (Dresden, Germany);</td>
</tr>
<tr>
<td>MZMB</td>
<td>Brno, Czech Republic</td>
<td>Moravské zemské muzeum (Brno, Czech Republic);</td>
</tr>
<tr>
<td>SMNK</td>
<td>Prague, Czech Republic</td>
<td>Staatsliches Museum für Naturkunde Karlsruhe (Germany);</td>
</tr>
<tr>
<td>coll. G. C. Bozano</td>
<td>Milan, Italy</td>
<td></td>
</tr>
<tr>
<td>coll. W. Eckweiler</td>
<td>Frankfurt, Germany</td>
<td></td>
</tr>
<tr>
<td>coll. W. ten Hagen</td>
<td>Mömlingen, Germany</td>
<td></td>
</tr>
<tr>
<td>coll. I. Pljustch</td>
<td>Kyiv, Ukraine</td>
<td></td>
</tr>
<tr>
<td>coll. Z. Weidenhoffer</td>
<td>Prague, Czech Republic</td>
<td></td>
</tr>
</tbody>
</table>

**Comments:**

HNHM (Budapest)—in this collection there is butterfly material from Afghanistan collected by D. Mütting in the years 1969, 1971, 1972 and by J. Wala collected in the year 1976.

MTDG (Dresden)—the collection in Dresden contains some of the material obtained from H. & E. Kotzsch in C. & E. Afghanistan in 1936.


In this group of butterflies the genitalia characters have never served for diagnosing and describing new species. Therefore, the figures of genitalia are not included here for comparison.

**Taxonomic account**

**Lycaenidae**

**Plebejus (Afarsia) sieversii albolunulatus subsp. nov.**

(Fig. 1)

**Type material.** *Holotype*: ♂ with the following label “O-Afghanistan, Pandschschir-Tal, vic. Astana, Hindukusch-Hauptkamm, Ab schobá, 4–4400 m, 10.8.1970, lg. Nasuk”.


The holotype and the paratype are deposited in the collection of SMNK.
Description. Forewing length (from base to apex) ca. 15 mm. Forewing: ground colour of upperside dark-violet, submarginal border black ca. 1.5 mm wide; triangular dark spots in discal areas. Underside of forewing grey with black spots in discal and postdiscal areas; submarginal area with darker spots; discal and postdiscal areas with full rows of black spots; all black and dark-grey spots bordered white; black spot in submarginal area (space 3) with silver-blue scales; white triangles which connect with white borders of black spots present between black postdiscal spots and dark-grey spots in submarginal area. Hindwing: the border divided into dark spots; triangular dark spots in discal areas.

Diagnosis. The new subspecies differs from all known populations of *P. sieversii* in the dark-violet colour of upperside of forewing and large white triangular spots on underside of hindwings (Fig. 2).

Distribution. Known from two localities in the extreme south-western part of the Hindukush Mountain Ridge.

Etymology. The name refers to the large white spots present in the new subspecies.

![Figure 1. Plebejus (Afarsia) sieversii albolunulatus subsp. nov., Holotype, ♂, Afghanistan, Pandschschir-Tal, vic. Astana, Hindukusch-Hauptkamm, Ab schobá, 4400 m, 10.8.1970, leg. Nasuk (SMNK).](image)

**Figure 1.** Plebejus (*Afarsia*) sieversii albolunulatus subsp. nov., Holotype, ♂, Afghanistan, Pandschschir-Tal, vic. Astana, Hindukusch-Hauptkamm, Ab schobá, 4400 m, 10.8.1970, leg. Nasuk (SMNK).

**Figure 2.** Plebejus (*Afarsia*) sieversii. 2.1. subsp. albolunulatus, Holotype, ♂, Afghanistan, Pandschschir-Tal, vic. Astana, Hindukusch-Hauptkamm, Ab schobá, 4400 m, 10.8.1970, leg. Nasuk (SMNK); 2.2. subsp. felicia ♂, Afghanistan, Prov. Bamian, Ghorghori-e-Panjao, Dada, 2600 m, 10.7.1976, leg. C. Naumann (SMNK); 2.3. subsp. goranus ♂, Afghanistan, Bala Quran, Vallée Anjuman, Hindukush, 3500–4000 m, 12.7.1969, coll. G-L Lucien (coll. W. Eckweiler).

Nymphalidae

*Karanasa naumannii* sp. nov.

(Figs 3, 4)


The holotype and the paratypes are deposited in the collection of SMNK.

Description. Forewing length (from base to apex) 26 mm. Forewing: ground colour of upperside light brown; orange-yellow-brown band in postdiscal area developed; apical black ocellus pupilled white ca. 4.5 mm wide, second black ocellus of diameter 1.5 mm. Underside of forewings orange-yellow-brown similar to band on upperside; apical black ocellus similar to upperside but yellow ringed; second black ocellus about 1 mm wide on right wing and reduced in left. Hindwing: on upperside orange-yellow-brown band in postdiscal area reduced; underside of hindwings as shown in Fig. 3.

Diagnosis. New species differs from *K. pamira titan* and *K. pamira biocellata* in the reduced orange-yellow-brown bands on upperside of hindwings; from *K. haslundi* in the wide and monotonous orange-yellow-brown bands on upperside of forewings. Sympatric with both *K. pamira* and *K. haslundi* (Fig. 5).

Distribution. Extreme south-western part of Hindukush Mountains and Koh-i-Baba Mountains.

Etymology. The name *naumannii* is dedicated to the late Prof. Dr. Clas Naumann, a well-known lepidopterologist from the Zoological Research Museum Alexander Koenig, Bonn who first collected this new species in 1970.


*Karanasa pamira biocellata* subsp. n.
(Fig. 6)

**Type material.** *Holotype:* ♂ with the following label “E-Afghanistan, Prov. Kapisa, Dar.-e-Pandjshir, Kotal-e-Zerja (Dehkak), 4000 m, 25.7.[19]72, lg. Khoram, [coll.] C. Naumann”.


The holotype and one paratype is deposited in the collection of SMNK; the second paratype in the collection G. C. Bozano.

**Description.** Forewing length (from base to apex) ca. 27 mm. Forewing: ground colour of upperside light
brown with orange-brown bands, with yellow patches in apex and costal parts; apical black ocellus pupilled white ca. 3 mm wide, second black ocellus reduced, visible as a very small dot. Underside of wings as shown in Fig. 6.

**Diagnosis.** New subspecies differs from the other subspecies of *K. pamira* in the small size and reduction of ocellus in space 3 on forewings (Fig. 7).

**Distribution.** Extreme western part of Hindukush Mountains.

**Etymology.** The name indicates the presence of only two ocelli on the forewings.

**Karanasa pardesi** sp. nov. (Fig. 8)

**Type material.** *Holotype*: ♂ with the following label “E-Afghanistan, Prov. Kapisa, Kotal-e-Andjuman, 4250 m, 16.7.19[9]71, leg. Pardes, Coll.-Nr. 1515, C. Naumann”.

**FIGURE 6.** Karanasa pamira biocellata subsp. nov., Holotype, ♂, Afghanistan, Prov. Kapisa, Dar.-e-Pandjshir, Kotal-e-Zerja (Dehkak), 4000 m, 25.7.1972, leg. Khoram (SMNK).


The holotype and the paratypes are deposited in the collection of SMNK.

**Description.** Forewing length (from base to apex) ca. 22 mm. Forewing: ground colour of upperside brown with yellow-brown spraying in basal and discal areas; yellow bands in postdiscal area well developed and powdered with orange-brown scales; androconial patches visible; apical black ocellus pupilled white, ca. 3 mm wide, second black ocellus is blind, i.e. without white scales in the centre, diameter ca. 2 mm; underside light brown. Hindwing: all veins on upperside yellow-brown, well developed; underside brown with white-yellow lines, light brown scales, and a light suffusion of submarginal bands.

**Diagnosis.** The new species differs from all known species of *Karanasa* in the presence of yellow bands in postdiscal area and well developed veins on both wings.

**Distribution.** Central and eastern Afghanistan.

**Etymology.** The name *pardesi* is dedicated to N. M. Pardes, the Afghani butterfly hunter, who collected the holotype and many other rare butterflies in Afghanistan in the 1970’s.

**Comment.** This species was recorded and figured by S. Sakai (1981, Pl. 20, fig. 6) as *Karanasa bolorica mohsenii* Wyatt & Omoto, [1967].

**FIGURE 8.** *Karanasa pardesi* sp. nov., Holotype, ♂, Afghanistan, Prov. Kapisa, Kotal-e-Andjuman, 4250 m, 16.7.1971, leg. Pardes (SMNK).

**FIGURE 9.** *Karanasa pseudopamira* sp. nov., Holotype, ♂, Afghanistan, Dar.-e.-Pandjshir, vic. Ghendju, Koh-e-Dalandur, 3800 m, 1.–6.8.1972, leg. N. M. Khoram (SMNK).

*Karanasa pseudopamira* sp. nov.

(Fig. 9)

**Type material.** *Holotype*: ♂ with the following label “E-Afghanistan, Dar.-e.-Pandjshir, vic. Ghendju, Koh-e-Dalandur, 3800 m, 1.–6.8.[19]72, leg. N. M. Khoram, Nr. 1441, C. Naumann”.

*Paratype*: ♂ with the following label “E-Afghanistan, Prov. Baghlan, Dar.-e-Andarab, 19.7.1971, leg. N. M. Pardes, Coll.-Nr. 1517, C. Naumann”.

The holotype is deposited in the collection of SMNK; the paratype in the collection G. C. Bozano.

**Description.** Forewing length (from base to apex) ca. 27 mm. Forewing: ground colour of upperside light-brown with yellow-orange bands in postdiscal area; androconial patches visible in space 1–3. Veins yellow-orange and well developed in space 1–3; apical black ocellus pupilled white, ca. 4.5 mm wide, second black ocellus is blind, without white scales in the centre, diameter ca. 3 mm. Underside of hindwings as shown in Fig. 9.

**Diagnosis.** New species differs from *K. pamira*, *K. alpherakyi* and *K. haslundi* in the clearly visible androconial patches and well developed veins. Underside more monotonous than other species of *K. pamira* group.

**Distribution.** Western part of Hindukush Mountains.

**Etymology.** The name of the new species indicates its close similarity to *K. pamira*.

An illustrative list of species-group taxa recorded for the first time for Afghanistan with comments on their distribution.
PIERIDAE

*Colias thisoa aeolides* Groum-Grshimaïlo, 1890

(Fig. 10)


**Distribution range of species.** Caucasus, Transcaucasia, Asia Minor and Elburs Mts. in Iran, mountains of Central Asia east to Altai.

**Distribution range of subspecies.** the subspecies *aeolides* occurs in mountains of Central Asia from Altai throughout Tian Shan to Alai, Transalai Mts., and Gissaro-Darvaz mountain systems. First recorded from the Afghani part of the Pamir (Hindukush Mts., Afghanistan); not known from the Tajiki parts of Badakhshan and Pamir.


LYCAENIDAE

*Deudoryx epijarbas* (Moore, [1858])

(Fig. 11)


**Distribution range of species.** Afghanistan (first record), across Indian subcontinent and Indo-China to southern China, Taiwan, Malay Peninsula, Andaman and Nicobar Islands.

**Everes dipora indica** Evans, 1932

(Fig. 12)

**Material examined.** ♀ with the following label “O-Afghanistan, Pr. Kunar, Nuristan unt. Lindai Sin-Tal, Kamu-Hotelgarten, 1600 m, 15.4.1971, leg. C. Naumann, Coll.-Nr. ZMK 141” (SMNK).

**Distribution range of species.** from Afghanistan across Himalayas to S.-W. China.

**Distribution range of subspecies.** eastern Afghanistan (first record), N. Pakistan and N.-W. India.

*Glaucopsyche charybdis* (Staudinger, 1886)

(Fig. 13)

**Material examined.** 8♂, 2♀ with the following labels “N-Afghanistan, Prov. Takhar, Amu Darya-Auen, Darqad

**Distribution range of species.** Afghanistan (first record), Tajikistan, Turkmenistan, and Uzbekistan.

**Comment.** This species was known only in grassy lowland near or in agricultural landscapes and in tugai (riverside) forests at altitudes below 600 m. Here, the first evidences of species distribution above 2500 m is presented.

**FIGURE 13.** *Glaucopsyche charybdis,* ♂, Afghanistan, Prov. Takhar, Amu Darya-Auen, Darqad Gebiet, 450 m, 30.4.1971, leg. C. Naumann (SMNK).


*Hyrcana evansii* (de Nicéville, 1902)

(Fig. 14)


**Distribution range of species.** eastern Afghanistan (first record) and northern Pakistan.

*Iolana gigantea* (Grumm-Grshimailo, 1885)

(Fig. 15)

**Material examined.** ♂ with the following label “Afghanistan sept., Prov. Takhar, Farkhar, 20.5.[19]72, Clas Naumann” (SMNK); 2♂, ♀ with the following labels “Afghanistan, Pandjshir-Tal, Kotal-e-Shawa, 3500–4000 m, 5–30.6.2010, leg. Assad-family” (coll. W. ten Hagen).

**Distribution range of species.** Afghanistan (first record), India, Kyrgyzstan, Pakistan, Tajikistan and Uzbekistan.

**Comment.** Once recorded from Afghanistan by Tuzov (2000), but this record was not based on reliable material (Tuzov pers. comm.).

*Lycaena balucha rushanica* (Zhdanko, 1990)

(Fig. 16)

**Material examined.** 3♂, ♀ with the following labels “Shiva Mts., Bahakhshan, Afghanistan, 6-8000 ft., 19–27.7.1960, Colin Wyatt” (SMNK); ♂ with the following label “N-Afghanistan, Prov. Samangan, Kotal-e-Rabatak, 1400 m, 13.6.[19]70, leg. C. Naumann, Coll.-Nr. 1066, [coll.] C. Naumann” (SMNK).

**Distribution range of species.** arid hillsides and mountains from Pakistan to southern Uzbekistan.
Distribution range of subspecies. *rushanica* was described from Tajiki part of Badakhshan, Tajikistan and here is the first record from Afghani Badakhshan and the northern part of the Province Samangan, Afghanistan.


*Lycaena kasyapa* (Moore, 1865)
(Fig. 17)


Distribution range of species. eastern Afghanistan (first record); local, occurs from upper part of forest belt to high mountain meadows in north-western part of Himalayas and northern Pakistan.

*Plebejus ferganus* (Staudinger, 1881)
(Fig. 18)


Distribution range of species. Afghanistan (first record), western China, Iran, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan.

Comment. this species was once recorded from Afghanistan by Samodurov (2000) but this record was not based on reliable material (Tuzov pers. comm.).

*Polyommatus amandus* (Schneider, 1792)
(Fig. 19)


Distribution range of species. Palaearctic.

*Polyommatus dagmara* (Grum-Grshimailo, 1888)
(Fig. 20)
Material examined. ♀ with the following label “N. Afghanistan, Badakhshan prov., 11 km SE Faizabad, 2.5 km S Som Dareh (Samdara), 1490 m, 15.7.2011, Yu. Skrylnik lg.” (coll. I. Pljustch & Yu. Skrylnik).

Distribution range of species. Afghanistan (new record), Tajikistan and Uzbekistan.


**FIGURE 20.** *Polyommatus dagmara*, ♀, Afghanistan, Badakhshan prov., 11 km SE Faizabad, 2.5 km S Som Dareh, 1490 m, 15.7.2011, leg. Yu. Skrylnik (coll. I. Pljustch & Yu. Skrylnik).


**Polyommatus farazi farmanali** (Charmeux, 2002)

(Fig. 21)

Material examined. 8♂ with the following labels “[Afghanistan], Badachschan, Sebak-Tal, Alpenwiesenzone, 2800–3000 m, Mitte Juni, leg. H. & E. Kotzsch” (MTDG, SMNK); ♂, ♀ with the following labels “Pass Nuksan, 3700 m, 20.7.[19]64, lgt. Haws” (MZMB); ♀ with the following label “O-Afghanistan, Prv. Kunar-Nuristan, ob. Lindai Sin-Tal, vic. Barg e-Matal, Dándizenor mts., 4000 m, 15.7.1970, leg. Naumann, Coll. Nr. ZMK 94” (SMNK).

Distribution range of species. Mountains of eastern Afghanistan (new record) and north-western Pakistan.

Distribution range of subspecies. Mountains of eastern Afghanistan (new record) and north-western Pakistan.

Comment. a long series of specimens was collected by H. & E. Kotzsch in Nuksan pass in 1936 and deposited in different museums. In the same locality this species was collected by Haws in 1964. It was previously determined as *Lycaena omphissa chitralensis* by Forster (1937: 61, Taf. IV–V, Abb. 13–14) and later as *Albulina chitralensis* by Howarth & Povolný (1976: 141). The taxonomic status of *farmanali* still requires clarification. This species-group taxon has been described as a *bona* species.

**Polyommatus kogistanus** (Grum-Grshimailo, 1888)

(Fig. 22)

Material examined. ♀ with the following label “N-Afghanistan, Prov. Badakhshan, Khwahan (Darwaz), Pari Kham, 2500 m, 30.7.[19]72, lg. Brade & Naumann, Nr. 1389, [coll.] C. Naumann” (SMNK).

Distribution range of species. Afghanistan (first record) and Tajikistan.

**Polyommatus lehanus armatheus** (Fruhstorfer, 1916)

(Fig. 23)

Distribution range of species. Afghanistan, China, India, Pakistan and Tajikistan.

Comment. records from Kyrgyzstan require confirmation.

Distribution range of subspecies. *armatheus* is described from “Chotan meridionalis, Schahidulla” [China, Xinjiang, Xaidulla, W. Kunlun Mts.] and distributed from Kunlun across Karakorum to Pamir and central part of the Hindukush mountain range; here is the first record from Afghanistan.

**FIGURE 22.** *Polyommatus kogistanus*, ♀, Afghanistan, Prov. Badakhshan, Khwahan (Darwaz), Pari Kham, 2500 m, 30.7.1972, leg. Brade & Naumann (SMNK).


**Polyommatus miris** (Staudinger, 1881)
(Fig. 24)


Distribution range of species. Afghanistan (first record), western China, Iran, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan.

Comment. recorded for Afghanistan as potentially occurring, but this record was not based on reliable material (Samodurov 2000: 180; Zhdanko 2002: 142).

**Polyommatus selma** Koçak, 1996
(Fig. 25)


Distribution range of species. Mountains of eastern Afghanistan (first record) and northern Pakistan.

Comment. the single record by Koçak (1996) is based on misidentified specimens of Forster (1937).


Turanana panaegides (Staudinger, 1886)
(Fig. 26)

Material examined. ♂ with the following label “N-Afghanistan, Prov. Badakhshan, Khwahan (Darwaz), Kotal-e-Kamkhas, 30–3500 m, 14.7.[19]72, leg. Brade & Naumann”, [coll.] C. Naumann” (SMNK).

Distribution range of species. Afghanistan (first record), Tian Shan, Pamir-Alai and Darvaz mountain range in Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan.

NYMPHALIDAE

Argynnis jainadeva Moore, 1864
(Fig. 27)

Material examined. ♂ with the following labels “Peschawurdo, Bashgultal, Nuristan, O-Afghanistan, 2200 m, 21.7.[19]52”, “ex coll. J. Froitzheim”, “jainadeva Moore”, “mohmandorum” (SMNK); ♂ with the following label “21.6.-1.7.1969, SO-Afghanistan, Safed Koh, Südseite, Kotkai, 2350 m, leg. Vartian” (SMNK).

Distribution range of species. eastern Afghanistan (new record), south-western China, north-western India, Nepal and Pakistan.

Comment. recorded by Evans (1924, 1927, 1932) from Safed Koh without specification of a country.

FIGURE 27. Argynnis jainadeva, ♂, Afghanistan, Peschawurdo, Bashgultal, Nuristan, 2200 m, 21.7.1952 (SMNK).

Argynnis niobe mohmandorum Fruhstorfer, 1912
(Fig. 28)

Material examined. ♂ with the following labels “SO-Afghanistan, Prov. Paktia, Safed Koh, S-Seite, Kotkai, 2350 m, 16/17.6.1971, Ebert & Naumann, UV-Li”, “SMNK, E-Lep. 35” (SMNK); ♀ with the following label “O-Afghanistan, Prov. Paktia, 3 km südlich Kotal-e-Sirkej, 2800 m, 18.6.1971, G. Ebert & C. Naumann, Tagfg. Coll Nr. 216/SMNK E-Lep. 35” (SMNK); 2 ♂ with the following labels “E-Afghanistan, Prov. Logar: Kotal-e-Tera, 27-2900 m, 8.7.[19]76, leg. Brade & Naumann”, [coll.] C. Naumann” (SMNK).

Distribution range of species. Palaearctic.

Distribution range of subspecies. the subspecies mohmandorum is known from Safed Koh Mts. in Afghanistan (new record) and Pakistan. The second locality in Afghanistan recorded for this subspecies is in the extreme south-western part of Hindukush Mts.

Comment. subsp. mohmandorum was presented as a synonym of A. jainadeva by Evans (1927: 119; 1932: 183) or of A. adippe by Tuzov & Bozano (2017: 44). New observations suggest that this taxon belongs to A. niobe (Linnaeus, 1758), which is sympatric with A. jainadeva in eastern Afghanistan and N.-W. Pakistan (cf. Tshikolovets & Pagès 2016).
Coenonympha nolckeni (Erschoff, 1874)  
(Fig. 29)

Material examined. ♂ with the following label “NO-Afghanistan, Prov. Badakhshan, 15 km NO Baharak, Kotal-e-Zardeu, Pas-Darrah, 3000–3200 m, 30.6.1971, leg. G. Ebert & C. Naumann, Tagfg. Coll Nr. 229 / SMNK E-Lep. 35” (SMNK); ♀ with the following label “NO-Afghanistan, Prov. Badakhshan, 15 km NO Baharak: Kotal-e-Zardeu, 3000 m, 29.6.1971, leg. Ebert & Naumann, Tagfg./coll. Nr. 227” (SMNK).

Distribution range of species. Afghanistan (new record), Tajikistan, Uzbekistan, Kyrgyzstan and Kazakhstan.

Hyponephele maureri (Stshetkin, 1963)  
(Fig. 30)

Material examined. ♂ with the following label “N-Afghanistan, Prov. Badakhshan, Khwahan (Darwaz), Pari Kham, 2300 m, 15.7.[19]72, lg. Brade & Naumann, Nr. 1361, [coll.] C. Naumann” (SMNK).

Distribution range of species. north-eastern Afghanistan (new record), Kyrgyzstan, Tajikistan and Uzbekistan.


Karanasa grumi Avinoff & Sweedner, 1951  
(Fig. 31)


Distribution range of species. Afghanistan (new record) and Tajikistan.

Karanasa incerta Bogdanov, 1997  
(Fig. 32)

Material examined. ♂, ♀ with the following labels “NO-Afghanistan, Gr. Pamir, Darrah-e-Istmotsh (N-Zweig), 4100 m, 4.8.1971, Ebert & Naumann, Tagfg./coll. Nr. 280”, “SMNK E-Lep. 35” (SMNK); ♂, with the following label “NO-Afghanistan, Prov. Badakhshan, Großer Pamir, Darrah-e-Istmodj, 4100 m, 4.8.1971, leg. G. Ebert & C. Naumann, Tagfg./coll. Nr. 279/SMNK E-Lep. 35” (SMNK); ♂ with the following label “N-Afghanistan, Prov. Badakhshan, Pamir e-Kalon, Mundjilak, 4000 m, 10.8.1972, lg. Naumann[ann], Nr. 1404, [coll.] C. Naumann” (SMNK); 2♂, ♀ with the following labels “Afghanistan, Shiva-See, 3500–4500 m, 2–5.8.1971, leg. Müting” (SMNK); ♀ with the following label “Afghanistan, Badakhshan, Shiva Lake, 3500 m, 22.07.2011 I. Pljushtch lg.”
Distribution range of species. Badakhshan and western part of the Hindukush Mountains within Afghanistan (new record) and Tajikistan.

**FIGURE 32.** Karanasa incerta, ♂, Afghanistan, Gr. Pamir, Darrah-e-Istmotsh (N-Zweig), 4100 m, 4.8.1971, leg. Ebert & Naumann (SMNK).


Karanasa leechi hunza Avinoff & Sweander, 1951 (Fig. 33)

**Material examined.** 4♂, ♀ with the following labels “N-Afghanistan, Prov. Badakhshan, Pamir-e-kalon, Ghazde Kol, 4000 m, 15.8.[19]72, leg. Brade & Naumann, Nr. 1408, [coll.] C. Naumann” (SMNK); ♀ with the following label “N-Afghanistan, Prov. Badakhshan, Pamir-e-kalon: Djermastirt, 4000 m, 12.8.[19]72, leg. Brade & Naumann, Nr. 1406, [coll.] C. Naumann” (SMNK).

**Distribution range of species.** Alai, Transalai Mountains, Pamir, E. Hindukush in Afghanistan (new record), China, Kyrgyzstan, Tajikistan and Pakistan.

**Distribution range of subspecies.** southern Pamir and E. Hindukush in Afghanistan (new record) and Pakistan.

Karanasa leechi leechi (Groum-Grshimaïlo, 1890) (Fig. 34)

**Material examined.** ♂, ♀ with the following labels “NO-Afghanistan, Prov. Badakhshan, Großer Pamir, Darrah-e-Istmodj, 4100 m, 4.8.1971, leg. G. Ebert & C. Naumann, Tagfg. Coll Nr. 279/SMNK E-Lep. 35” (SMNK); ♀ with the following label “NO-Afghanistan, Gr. Pamir, Darrah-e-Istmotsh (N-Zweig), 4100 m, 4.8.1971, Ebert & Naumann, Tagfg./coll/ Nr. 280” (SMNK).

**Distribution range of species.** Alai, Transalai Mountains, Pamir, E. Hindukush in Afghanistan (new record), China, Kyrgyzstan, Tajikistan and Pakistan.

**Distribution range of subspecies.** Pamir in Afghanistan (new record), China and Tajikistan.

Karanasa maureri mushketovi Avinoff & Sweadner, 1951 (Fig. 35)

**Material examined.** ♂, ♀ with the following label “Afghanistan, Badakhshan, Shiva Lake, 3500 m, 22.7.2011, I. Pljustch lg.” (coll. I. Pljustch); ♀ with the following label “Shiva-See, SW-Pamir-Afghanistan, 3500–4500 m, 2.–5.8.1971, leg. Mütting” (coll. W. Eckweiler).
Distribution range of species. Afghanistan (new record), Kyrgyzstan, Tajikistan and Uzbekistan.

Distribution range of subspecies. Afghanistan (new record) and Tajikistan.

**Melitaea balbina** Tytler, 1926
(Fig. 36)


**Pseudochazara kanishka** Aussem, 1980
(Fig. 37)


**Satyrus alaica** Staudinger, 1886
(Fig. 38)

Material examined. ♂ with the following label “NO-Afghanistan, Prov. Badakhshan, 5 km sö Sarhad, Pantsch-Schlucht (Wakhan), 3200 m, 9.7.1971, leg. G. Ebert & C. Naumann, Tagfg. Coll. Nr. 239/SMNK E-Lep. 35” (SMNK).

**Satyrus ferula altaica** Grum-Grshimailo, 1893
(Fig. 39)

Material examined. 2♂, ♀ with the following labels “N-Afghanistan, Prov. Badakhshan, 11 km SW Sheghnan, Schtir-Schew, 4000 m, 25–28.7.[19]71, lg. Asisi, Coll Nr 1021” (SMNK); ♂ with the following label “E-
Afghanistan, Prov. Kapisa, Dar.-e-Pandjshir, Darra-e-War, 30.7.[19]72, lg. einheim. Samml., Nr. 1545, [coll.] C. Naumann” (SMNK); ♀ with the following label “J. Klapperich, Sarekanda, Gebirge Badakschan, NO-Afghanistan, 3600 m, 23.7.[19]53” (SMNK); ♂ with the following label “N-Afghanistan, Prov. Badakshshan, 11 km SW Sheghnan, Schtr-Schew, 4000 m, 25.7.[19]71, leg. Asisi, Coll Nr 1021” (coll. W. Eckweiler).

**Distribution range of species.** northern Africa, southern Europe, temperate and subtropical parts of western and central Asia, including Afghanistan (new record).

**Distribution range of subspecies.** mountains of Central Asia.

**FIGURE 38.** *Satyrus alaica*, ♂, Afghanistan, Prov. Badakshshan, 5 km sö Sarhad, Pantsch-Schlucht (Wakhan), 3200 m, 9.7.1971, leg. G Ebert & C. Naumann (SMNK).


*Satyrus pimpla magna* (Evans, 1923)  
(Fig. 40)


**Distribution range of species.** Afghanistan, India, Pakistan, and Tajikistan.

**Distribution range of subspecies.** Afghanistan (new record) and Pakistan.

**Acknowledgements**

The author is grateful to Dr. R. Trush, M. Falkner, Prof. D. Povolný (†), Prof. C. Naumann (†), Dr. W. Eckweiler, Dr. Zs. Bàlint, Dr. M. Nuss, Dr. I. Pljustch, Dr. W. ten Hagen, Zd. Weidenhoffer, Dr. O. Pak and Dr. Yu. Skrylnik for the opportunity to study the collections under their responsibility or ownership.
Special thanks are due to G. C. Bozano, W. Eckweiler and W. ten Hagen, W. De Prins and Dr. O. Kosterin, for discussions and for their useful comments. Barry Goater is thanked for linguistic corrections. Dr. Jurate De Prins is kindly acknowledged for offering valuable suggestions and editing the manuscript.

References


http://dx.doi.org/10.11646/zootaxa.3985.3.6


https://doi.org/10.11646/zootaxa.4027.2.7


https://doi.org/10.1111/j.1469-7998.1865.tb02378.x


Tshikolovets, V.V. ([2004]) *The Butterflies of Tajikistan*. Published by the author, Kyiv-Brno, 500 pp., [1–3] + LXXVII pls., maps.

Tshikolovets, V.V. (2005a) *The Butterflies of Ladak*. Published by the author, Kyiv-Brno, 176 pp., XXX pls., maps.

Tshikolovets, V.V. (2005b) *The Butterflies of Kyrgyzstan*. Published by the author, Kyiv-Brno, 511 pp., CVIII pls, maps.


