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New records of butterfly fauna (Lepidoptera: Hesperioidaea, Papilionoidaea) from Daghestan (Russia)

Новые находки булавоусых чешуекрылых (Lepidoptera: Hesperioidaea, Papilionoidaea) в фауне России из Дагестана

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Abstract. Five new species of butterflies (Lepidoptera: Hesperiidae, Lycaenidae, Satyridae) were found in the mountains of Daghestan (Russia).

Резюме. Пять новых для фауны России видов булавоусых чешуекрылых (Lepidoptera: Hesperiidae, Lycaenidae, Satyridae) приводятся для горных районов Дагестана.

The butterfly fauna of the eastern part of the Great Caucasus represents an interesting and complicated complex including Mediterranean, Turan and Middle Eastern zoogeographic elements. Some recent researches of museum and private collections showed the presence of some anatolic and eastern Mediterranean species in Daghestan [Plyusch, Yakovlev, 2001; Morgun, 2004]. That makes the Eastern Caucasian fauna close to the transcaucasian one. These circumstances determine the objective necessity of zoogeographic separation of that area from other territories of the Great Caucasus. At least 15 transcaucasian butterfly species have been found in Daghestan in recent years. All of them are presented by the most northern known populations and therefore exist in extreme conditions being isolated. These eastern Caucasian populations require in some districts local monitoring and conservation due to the increasing anthropogenic pressure.

The regular expeditions were undertaken by the authors and Dr. Elena V. Ilyina (Makhachkala) in 2003–2009. These trips allowed to enrich the view on the butterfly fauna of the Eastern Caucasus. During the last year there were 5 new species found there.

Familia Hesperiidae

Spialia phlomidis (Herrich-Schäffer, [1845])
(Color plate 15: fig.1)

Material. 1♂, Daghestan, Rutul, 1350 m, 26.07.2009 (D.V. Morgun).

Dry mountain steppe meadow, among xerophytic vegetation. It flies together with *S. orbifer* (Hübner, [1823]), *C. lavatherae* (Esper, [1783]). The species was mentioned by Korshunov [1972] for the Southern European Part of Russia, but its distribution has not been confirmed until now there.

Gegenes nostrodamus (Fabricius, 1793)
(Color plate 15: fig.2)

Material. 1♂, Daghestan, Samur river basin, 5.09.2008 (V.V. Tikhonov).

Dry meadow in river valley.

Familia Lycaenidae

Armenia ledereri (Boisduval, 1848)
(Color plate 15: fig.3)

Material. 4♂, 1♀, 9.07.2009, Daghestan, Bogos Range, Avarskoye Koysu left tributary, Saraor river, 1650 m a.s.l. (V.V. Tikhonov).

Dry steppe-clad slopes with shrubs Atraphaxis daghestanicus (Lovelius). Butterflies feed on flowers; fly quickly among bushes together with imagines of the next species. Ova are found upon leaves of A. daghestanicus, which is the food plant of the species in Transcaucasia too [Tuzov et al., 2000].

Nordmannia abdominalis (Gerhard, [1850])
(Color plate 15: fig.4)

Material. 1♂, 3.06.2007, Daghestan, 15 km W of Makhachkala, Sarykum, Karatyobe Range, 400 m a.s.l. (V.V. Tikhonov); 2♂, 1.06.2008, Daghestan, Samur Range, Mugergan environs, Tchakh-Tchakh, 850 m a.s.l. (V.V. Tikhonov); 1♂, 10.06.2008, the same locality (V.V. Tikhonov); 1♂, 13.06.2008, Daghestan, Tchirkei environs, 200 m a.s.l. (V.V. Tikhonov); 2♂, 9.07.2009, Daghestan, Bogos Range, Avarskoye Koysu left tributary, Saraor river, 1650 m a.s.l. (V.V. Tikhonov); 1♂, 3.06.2009, Daghestan, Makhachkala environs, Talgi gorge (V.V. Tikhonov).

Southern bushy slopes. B. Gerhard mentioned the species for the Southern Daghestan ("bei Achty am Samurflusse im Caucasus") in 1882 [by Korb, 2005], but since that time the distribution of the species near Akhty village has not been confirmed. The wings of the specimens are dark

brown on upper- and undersides. The underside of the forewing has the bright continuous postdiscal white stripe with a prominent inner border and the dark elements in the anal angle. The hindwing has the same distinct white line and a bluish spot in the anal angle. The fresh specimens have longer "tails" of the hindwing than in close species *N. acaciae* (Fabricius, 1787). The wings are also more rounded and darker.

Familia Satyridae

Melanargia larissa (Geyer, [1828])

(Color plate 15: fig.5)

Material. Daghestan, Dubki environs, 07.2006 (V.V. Tikhonov); Daghestan, Tchirkata, 15.07.2009 (E.V. Ilyina); Daghestan, Bogos Range, Avarskoye Koysu river valley, 1100 m, 9.07.2009 (V.V. Tikhonov); Daghestan, Rutul, 1300 m, 26.07.2009 (D.V. Morgun).

The species was initially found in the Inner Daghestan by V.V. Dobronosov (Vladikavkaz) in 2006. It was quite abundant in the Bogos Mts. and in the Rutul district in 2009. That species is an obvious indicator of dry xerophytic associations in the lower altitudes up to 1600 m a.s.l. It is substituted by the close species *M. russiae* (Esper, [1783]) higher in the subalpine mountain belt.

These species are the indicators of the environmental situation in the districts with the strong anthropogenic pressure. The local findings of them show the necessity of their conservation and therefore they should be involved into the regional Red List. Also the collectings in the southern part of High Mountain Daghestan showed the distribution of *Muschampia tessellum* (Hübner, [1803]) there. It is found for the first time in the East Caucasus (according to the map of its distribution in the book of Gorbunov [2001]). That species is included in the European Red List.

The planning expeditions to the region are to enrich the biodiversity view and will be treated in further publications devoted to the fauna and zoogeography of Daghestan butterflies.

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Fig. 1. *Spialia phlomidis* (Herrich-Schäffer, [1845]).

Fig. 2. *Gegenes nostrodamus* (Fabricius, 1793).

Fig. 3. *Armenia ledereri* (Boisduval, 1848).

Fig. 4. *Nordmannia abdominalis* (Gerhard, [1850]).

Fig. 5. *Melanargia larissa* (Geyer, [1828]).

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