

Faunal notes on species of *Bombus* Latreille, 1802 (Hymenoptera: Apidae) from the Terskei Ala-Too mountain ridge in Eastern Kyrgyzstan

Фаунистические заметки о шмелях *Bombus* Latreille, 1802 (Hymenoptera: Apidae) хребта Терской Ала-Тоо в Восточном Кыргызстане

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Abstract. Twelve species of *Bombus* collected in Kyrgyzstan in 2012 are presented; six of them as new records for a site in Eastern Kyrgyzstan.

Резюме. Приводится список 12 видов шмелей, собранных в Кыргызстане в 2012 году, из них 6 являются новыми находками для Кыргызстана.

Introduction

Bumblebees number about 250 species worldwide, and are placed in a single genus *Bombus* Latreille, 1802, with 15 subgenera [Williams et al., 2008].

To date several species have been recorded from the territory of Kyrgyzstan. Two species, *Bombus terrestris* Linnaeus, 1758 and *B. serrisquama* Morawitz, 1888 were recorded feeding on the plant *Papaver somniferum*, noted by Pek [1958, 1962] from her study in the Issyk-Kul Lake area in 1956–1957. Skorikov [1931] mentioned 11 species of *Bombus* from Kyrgyzstan; Panfilov [1962] 14 species, Williams [2011] 18 species; and 12 species are given in this paper from Terskei Ala-Too. The Genetical Fund Cadastre of Kyrgyzstan [Tarbinsky, Milko, 1996] lists 24 species of bumblebees (only 18 of which are currently valid now), 14 of which were recorded from the Issyk-Kul Lake area. Three species (*B. dumoucheli* Radoszkowsky, 1884 [*B. armeniacus* Radoszkowski, 1877 (= *dumouchelii*), *B. keriensis* F. Morawitz, 1887, *B. tianshanicus* Panfilov, 1956] [*B. laesus* Morawitz, 1875 (= *tianshanicus*)] are sub-endemic, and one (*B. laesus mocsaryi* Kriechbaumer, 1877 [*B. laesus* (= *laesus mocsaryi*)] is endemic. *Bombus armeniacus* and *B. keriensis* were noted from Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan [Skorikov, 1931], Kazakhstan [Yefremova, 2001], and China, Kazakhstan and Kyrgyzstan [Williams, 2011], and therefore these species should not be considered as sub-endemic. Both *B. tianshanicus* and *B. laesus mocsaryi* were placed in synonymy by Williams et al. [2009]. *Bombus armeniacus*

is widely distributed in the Palearctic Region and thus also cannot be sub-endemic.

Our material was collected from the Djilandy gorge, situated in the northern midlands, on the macro-slope Terskei Ala-Too (Terskei Mt. Ridge), about 20 km ESE of Karakol (formerly Przhhevsk). At the bottom of this gorge is a stream, a left tributary of the River Arashan. The Terskei Ala-Too is a mountain range in Kyrgyzstan's Tian-Shan region that borders Issyk Kul Lake and Kochkor Valley from the south. The length of the range is 354 km and the highest peak-yeltsin Peak is 5.216 m. The Terskei Ala-Too is composed of granite and granodiorites of the Caledonian period, and granite, metamorphic schists, quartz, sandstone, and limestone of the Paleozoic period. Vegetation is represented by the Schrenk spruce (*Picea schrenkiana*), interspersed with plantings of spruce, pine, larch, birch, while the middle mountain steppes are dominated by *Caragana* sp., honeysuckle, barberry, and hawthorn.

The present paper introduces new records of *Bombus* species from Kyrgyzstan.

Material and methods

The present paper is based on the material collected by Dr V. Kravchenko in Kyrgyzstan, East Issyk Kul, Terskei Mt. Ridge, Djilandy gorge, 2.5 km S vill. Teploklyuchenka (Ak-Suu), 42°27.5'N / 78°31.4'E, 1950 m. Bumblebees were collected using Malaise traps during one month (July 2012). The Malaise traps were situated near a small stream and flowering vegetation (Asteraceae and Fabaceae).

The subgeneric system follows Williams et al. [2008, 2011, 2012]. In the following check-list, the subgenera and species are listed in alphabetical order.

The material is deposited in the National Collection of Insects, Zoological Museum, Department of Zoology, Tel Aviv University, Tel Aviv, Israel (TAUI).

Bombus (Bombus) lucorum (Linnaeus, 1761) complex

= *Apis cryptarum* Fabricius, 1775.

Material. 6♀, Kyrgyzstan, 2.5 km S vill. Teploklyuchenka (Ak-Suu), Malaise trap, July 2012, V. Kravchenko.

Distribution. Palearctic, Oriental Regions.

Bombus (Bombus) terrestris (Linnaeus, 1758)

Material. 1♀, Kyrgyzstan, 2.5 km S vill. Teploklyuchenka (Ak-Suu), Malaise trap, July 2012, V. Kravchenko.

Distribution. Palearctic Region.

Bombus (Cullumanobombus) cullumanus (Kirby, 1802)

= *Bombus serrisquama* Morawitz, 1888: 224.

Material. 3 ♀, Kyrgyzstan, 2.5 km S vill. Teploklyuchenka (Ak-Suu), Malaise trap, July 2012, V. Kravchenko.

Distribution. Palearctic Region.

Bombus (Kallobombus) soroensis (Fabricius, 1777)

Material. 2♀, Kyrgyzstan, 2.5 km S vill. Teploklyuchenka (Ak-Suu), Malaise trap, July 2012, V. Kravchenko.

Distribution. Palearctic Region.

Bombus (Megabombus) hortorum (Linnaeus, 1761)

Material. 1♀, 2♂, Kyrgyzstan, 2.5 km S vill. Teploklyuchenka (Ak-Suu), Malaise trap, July 2012, V. Kravchenko.

Distribution. Palearctic Region.

Bombus (Mendacibombus) turkestanicus Skorikov, 1910

Material. 1 specimen (ww), Kyrgyzstan, 2.5 km S vill. Teploklyuchenka (Ak-Suu), Malaise trap, July 2012, V. Kravchenko.

Distribution. Palearctic Region.

Bombus (Pyrobombus) jonellus (Kirby, 1802)

Material. 2♂, Kyrgyzstan, 2.5 km S vill. Teploklyuchenka (Ak-Suu), Malaise trap, July 2012, V. Kravchenko.

Distribution. Palearctic, Nearctic Regions.

Bombus (Thoracobombus) armeniacus Radoszkowski, 1877

Material. 5♀, Kyrgyzstan, 2.5 km S vill. Teploklyuchenka (Ak-Suu), Malaise trap, July 2012, V. Kravchenko.

Distribution. Palearctic, Oriental Regions.

Bombus (Thoracobombus) pascuorum (Scopoli, 1763)

Material. 1♀, Kyrgyzstan, 2.5 km S vill. Teploklyuchenka (Ak-Suu), Malaise trap, July 2012, V. Kravchenko.

Distribution. Palearctic Region.

Bombus (Thoracobombus) veteranus (Fabricius, 1793)

Material. 1♀, Kyrgyzstan, 2.5 km S vill. Teploklyuchenka (Ak-Suu), Malaise trap, July 2012, V. Kravchenko.

Distribution. Palearctic Region.

Bombus (Subterraneobombus) distinguendus Morawitz, 1869

Material. 3♀, Kyrgyzstan, 2.5 km S vill. Teploklyuchenka (Ak-Suu), Malaise trap, July 2012, V. Kravchenko.

Distribution. Palearctic, Nearctic Regions [Williams, 2011].

Bombus (Subterraneobombus) subterraneus (Linnaeus, 1758)

Material. 1♀, 1♂, Kyrgyzstan, 2.5 km S vill. Teploklyuchenka (Ak-Suu), Malaise trap, July 2012, V. Kravchenko.

Distribution. Palearctic Region [Williams, 2011].

The new records for Eastern Kyrgyzstan are *B. distinguendus*, *B. jonellus*, *B. pascuorum* and *B. subterraneus*. At Ak-suu (20 km east of vill. Teploklyuchenka) material was collected 2004 by Japanese scientists and published by Williams [2011]. Among our own material I was unable to find the following species: *B. laesus*, *B. ruderarius* (Muller, 1776), *B. subtypicus* (Skorikov, 1914) and *B. keriensis* which were noted by Williams. The updated checklist of *Bombus* (except for the subgenus *Bombus (Psithyrus)*) from Kyrgyzstan now comprises 22 species.

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