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## To the knowledge of the bee genus *Colletes* Latreille, 1802 (Hymenoptera: Apoidea: Colletidae) of Dagestan, Russia

### К познанию пчел рода *Colletes* Latreille, 1802 (Hymenoptera: Apoidea: Colletidae) Дагестана, Россия

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**Key words:** Hymenoptera, Colletidae, *Colletes*, bees, fauna, lectotype, Caucasus, Palaearctic region.

**Ключевые слова:** Hymenoptera, Colletidae, *Colletes*, пчелы, фауна, лектотип, Кавказ, Палеарктика.

**Abstract.** Twenty two species of the bee genus *Colletes* Latreille, 1802 are recorded for the Republic of Dagestan of Russia (the North Caucasus). Six species, *Colletes asiaticus* Kuhlmann, 1999, *C. dorsalis* Morawitz, 1888, *C. edentulus* Noskiewicz, 1936, *C. hethiticus* Warncke, 1978, *C. uralensis* Noskiewicz, 1936, and *C. wollmanni* Noskiewicz, 1936 are recorded for the first time for Russia and seven species, *C. brevigena* Noskiewicz, 1936, *C. carinatus* Radoszkowski, 1891, *C. eous* Morice, 1904, *C. floralis* Eversmann, 1852, *C. fodiens* (Fourcroy, 1785), *C. maidli* Noskiewicz, 1936, and *C. tuberculatus* Morawitz, 1893 are new to Dagestan. The number of Dagestanian *Colletes* species is supposed to be at least one fourth higher than known so far. Probably several species that are known from neighboring Azerbaijan, Georgia or North Caucasus regions of Russia also occur in Dagestan, such as *C. hakkari* Kuhlmann, 2002, *C. morawitzi* Noskiewicz, 1936, *C. nasutus* Smith, 1853, *C. penulatus* Noskiewicz, 1936, *C. rubellus* Noskiewicz, 1936, *C. subnitens* Noskiewicz, 1936, or *C. warnckeae* Kuhlmann, 2002. The number of *Colletes* species reported from Russia increases to 51. Additionally, a new lectotype of *C. caspicus* Morawitz, 1874 is designated.

**Резюме.** Приведен аннотированный список 22 видов пчел рода *Colletes* Дагестана. Шесть видов впервые указываются для фауны России: *Colletes asiaticus* Kuhlmann, 1999, *C. dorsalis* Morawitz, 1888, *C. edentulus* Noskiewicz, 1936, *C. hethiticus* Warncke, 1978, *C. uralensis* Noskiewicz, 1936, *C. wollmanni* Noskiewicz, 1936 – и семь видов для фауны Дагестана: *C. brevigena* Noskiewicz, 1936, *C. carinatus* Radoszkowski, 1891, *C. eous* Morice, 1904, *C. floralis* Eversmann, 1852, *C. fodiens* (Fourcroy, 1785), *C. maidli* Noskiewicz, 1936 и *C. tuberculatus* Morawitz, 1893. Предполагается, что число видов дагестанских *Colletes* будет как минимум на четверть больше. Вероятно, в Дагестане также обитают

несколько видов, которые известны из соседних Азербайджана, Грузии или регионов Северного Кавказа: *C. hakkari* Kuhlmann, 2002, *C. morawitzi* Noskiewicz, 1936, *C. nasutus* Smith, 1853, *C. penulatus* Noskiewicz, 1936, *C. rubellus* Noskiewicz, 1936, *C. subnitens* Noskiewicz, 1936, или *C. warnckeae* Kuhlmann, 2002. Число видов *Colletes*, зарегистрированных в России, увеличивается до 51. Обозначен новый лектотип для *C. caspicus* Morawitz, 1874.

### Introduction

The Republic of Dagestan is the southernmost region of Russia located in the North Caucasus. The geographical situation, landscape diversity and the Caspian Sea create a diverse climate in Dagestan. The republic comprises five climatic and a number of geographical zones: from the subtropical Caspian lowland at twenty eight meters below the level of the world ocean up to the more than four thousand meters high snowy peaks of the Caucasus. Local summers are warm and long. Average winter temperature is 0–5 °C, average summer temperature is +25 °C [Maslov et al., 1957].

There are currently about 400 species of bees known from Dagestan [Proshchalykin, Astafurova, 2017], although this is undoubtedly a gross underrepresentation due to sparse sampling that has been done on the fauna, and new records and species are frequently discovered [Proshchalykin, Dathe, 2017; Proshchalykin et al., 2017; Fateryga, 2017; Fateryga et al., 2019]. Among the bees of Dagestan, the genus *Colletes* Latreille, 1802 is one of the least-studied genera.

The genus *Colletes* currently includes more than 500 described species with an estimated total of about 700 species [Kuhlmann, Proshchalykin, 2011] from most continents except Antarctica, Australia, and parts

of Southeast Asia and Madagascar [Michener, 2007; Kuhlmann, 2014]. In recent years significant progress has been made towards a better knowledge of species of *Colletes* from Russia [Kuhlmann, Proshchalykin, 2011, 2014; Proshchalykin, Kuhlmann, 2012, 2015a]. Currently 45 species are known from this country [Proshchalykin, 2017a, b], but the *Colletes* fauna of the North Caucasus region including Dagestan is particularly understudied.

Hitherto, *Colletes caspicus* Morawitz, 1874 has been described from Dagestan, and in total only nine species have been recorded for this region [Morawitz, 1874; Skhirtladze, 1984; Kuhlmann, Proshchalykin, 2014, 2016]. Based on a comprehensive study of specimens mainly collected in Dagestan and additional specimens from the collection of the Zoological Institute of the Russian Academy of Sciences, (St Petersburg, Russia), we here list 22 species of the genus *Colletes*, with six species newly recorded from Russia (*C. asiaticus* Kuhlmann, 1999, *C. dorsalis* Morawitz, 1888, *C. edentulus* Noskiewicz, 1936, *C. hethiticus* Warncke, 1978, *C. uralensis* Noskiewicz, 1936, and *C. wollmanni* Noskiewicz, 1936) and seven species newly recorded for Dagestan (*C. brevigena* Noskiewicz, 1936, *C. carinatus* Radoszkowski, 1891, *C. eous* Morice, 1904, *C. floralis* Eversmann, 1852, *C. fodiens* (Fourcroy, 1785), *C. maidli* Noskiewicz, 1936, and *C. tuberculatus* Morawitz, 1893). In total 51 *Colletes* species are now known from Russia.

The number of Dagestanian *Colletes* species is supposed to be at least one fourth higher than known so far. We expect that several species that are known from neighboring Azerbaijan, Georgia or North Caucasus regions of Russia also occur in Dagestan, such as *C. hakkari* Kuhlmann, 2002, *C. morawitzi* Noskiewicz, 1936, *C. nasutus* Smith, 1853, *C. penulatus* Noskiewicz, 1936, *C. rubellus* Noskiewicz, 1936, *C. subnitens* Noskiewicz, 1936, or *C. warnkei* Kuhlmann, 2002.

Additionally, a new lectotype is designated here for *Colletes caspicus* Morawitz, 1874 to avoid any confusion about the status and diagnosis of type specimens.

## Material and methods

The results presented in this paper are based on 162 specimens mainly collected in 2017–2018 in various localities of Dagestan. We have used the following abbreviations for collectors:

MM – M.V. Mokrousov;  
MP – M.Yu. Proshchalykin;

YA – Yu.V. Astafurova;  
VL – V.M. Loktionov;

and for collections in which specimens are deposited:

FSCV – Federal Scientific Center of the East Asia Terrestrial Biodiversity of the Far Eastern Branch of the Russian Academy of Sciences (Vladivostok, Russia);

OLBL – Biologiezentrum of the Oberösterreichische Landesmuseum (Linz, Austria);

RCMK – Research collection of M. Kuhlmann (Kiel, Germany);

ZISP – Zoological Institute of the Russian Academy of Sciences (St Petersburg, Russia).

The definition of species groups in *Colletes* follows Noskiewicz [1936] and Kuhlmann et al. [2009]. Hard

brackets are used when information is added to specimen label information (e.g., geographical coordinates). The distribution of species generally follow that of Proshchalykin [2017a, b] and Proshchalykin and Kuhlmann [2018]. New distribution records are marked with an asterisk \*.

### *Colletes nigricans* group

*Colletes eous* Morice, 1904

*Colletes eous* Morice, 1904: 43–44, ♀, ♂ (syntypes: ♀♀, ♂♂, Helenendorf, Azerbaijan).

**Material.** 1♂ (ZISP), 3 km NW Primorsky, Samur Reserve, 41°52'0"N / 48°33'23"E, 06.06.2017 (MM); 3♂ (FSCV, ZISP), 20 km W Makhachkala, Barkhan Sarykum, 43°0'36"N / 47°14'13"E, 23–24, 26.06.2018 (MP, VL, MM, YA); 1♀, 1♂ (FSCV), near Talgi vill., 42°52'35"N / 47°26'24"E, 25.06.2018 (MP, VL, MM); 3♂ (FSCV, ZISP), 6 km NW Rutul, near Kufa vill., 41°33'55"N / 47°21'43"E, 1.07.2018 (MP, VL, MM, YA).

**Distribution.** Russia (North Caucasus, including Dagestan\*, European part, Crimea); North Africa, Europe, Georgia, Azerbaijan, Turkey, Lebanon, Iran, Central Asia, India.

### *Colletes carinatus* group

*Colletes carinatus* Radoszkowski, 1891

*Colletes carinatus* Radoszkowski, 1891: 258–259, ♀, ♂ (lectotype: ♀, designated by Proshchalykin, 2017a: 21, Ashkhabad, Turkmenistan).

**Material.** 2♀ (FSCV, RCMK), near Talgi vill., 42°52'35"N / 47°26'24"E, 25.06.2018 (MP, VL, MM, YA).

**Distribution.** Russia (North Caucasus\*, Crimea); Europe, Caucasus, Central Asia.

### *Colletes hylaeiformis* group

*Colletes hylaeiformis* Eversmann, 1852

*Colletes hylaeiformis* Eversmann, 1852: 45, ♀, ♂ (lectotype: ♀, designated by Proshchalykin, 2017a: 32, Lower Volga region, Russia); Kuhlmann, Proshchalykin, 2014: 208 (30 km SE Makhachkala, Manaskent).

**Material.** 1♀ (RCMK), Derbent, 42°5'54"N / 48°17'17"E, 28–29.06.2018 (MP, VL, MM); 1♀, 1♂, 3 km NW Primorsky, Samur Reserve, 41°52'0"N / 48°33'23"E, 3.07.2018 (MP, VL, MM).

**Distribution.** Russia (North Caucasus, including Dagestan\*, European part, Crimea); Europe, Georgia, Azerbaijan, Kazakhstan, Uzbekistan, Tajikistan.

### *Colletes caspicus* group

*Colletes anceps* Radoszkowski, 1891

*Colletes anceps* Radoszkowski, 1891: 256, ♀, ♂ (lectotype: ♀, designated by Proshchalykin, 2017a: 17, "Kirgis," Atyrau Region, Kazakhstan); Kuhlmann, Proshchalykin, 2016: 370 (9 km SSE Kochubei; 12 km SSW Kizlyar).

**Distribution.** Russia (Dagestan); Turkey, Central Asia, Iran, Afghanistan, Pakistan, China.

### *Colletes caspicus* Morawitz, 1874

*Colletes caspicus* Morawitz, 1874: 174–175, ♀, ♂ (lectotype: ♀ (OLBL), designated here, "Derbent." (Republic of Dagestan, Russia), "caspicus ♀ F. Mor." (handwritten by F. Morawitz), "Colletes caspicus Mor. det. Dr. Warncke," "Pollenprobe-Nr. 1017, M. Kuhlmann 2004," "Lectotypus, *Colletes caspicus* Morawitz, 1874, design. Proshchalykin & Kuhlmann, 2019" (red label).

**Remark.** In an earlier paper [Proshchalykin, Kuhlmann, 2015b: 544] we erroneously designated a lectotype of *C. caspicus*. The species was described based on specimens collected in Derbent, a town in southern Dagestan. There was only a single female of *C. caspicus* in ZISP bearing a handwritten label by F. Morawitz that was collected in Fan (“Фанъ”). We assumed that this meant a place in or near Derbent. However, it turned out that Fan was a river in Tajikistan and that the label “12” meant the date of collection of this specimen (June 12, 1870) during the A. Fedchenko expedition to Turkestan. The actual collecting site of this specimen was Peti village at Fan River, 39°20'N / 68°30'E. Thus, the specimen designated by us was not a syntype and hence the lectotype designation was not valid according to International Code of Zoological Nomenclature [1999] article 74.2.

In the Warncke collection at the OLBL, we now found a single female *C. caspicus* with handwritten labels by F. Morawitz “Derbent.” and “*caspicus* ♀, F. Mor.” that represents a genuine syntype and is here designated as the lectotype instead.

**Distribution.** Russia (North Caucasus, European part, Crimea, Urals, Siberia); Europe, Georgia, Azerbaijan, Central Asia, Iran, China.

#### *Colletes maidli* Noskiewicz, 1936

*Colletes maidli* Noskiewicz, 1936: 166–168, ♀, ♂ (syntypes: 15♀, 27♂, Italy, Spain, Syria, Azerbaijan).

**Material.** 2♀, 11♂ (FSCV/ZISP), 13 km NE Kochubei, 44°26'35"N / 46°41'31"E, 18.06.2018 (MP, VL, MM, YA); 4♀ (FSCV), 8 km SE Staroterechnoe vill., 43°47'34"N / 47°31'39"E, 19.06.2018 (MP, VL, MM); 1♂ (FSCV), 3 km SW Novoterechnoe vill., 43°59'44"N / 47°19'35"E, 20.06.2018 (MP, VL, MM); 3♀ (FSCV), 22 km SW Terekli-Mekteb, 44°2'35"N / 45°38'56"E, 21.06.2018 (MP, VL, MM); 1♀, 1♂ (FSCV), 20 km W Makhachkala, Barkhan Sarykum, 43°0'36"N / 47°14'13"E, 23–24, 26.06.2018 (MP, VL, MM); 1♀, 1♂ (FSCV), near Talgi vill., 42°52'35"N / 47°26'24"E, 25.06.2018 (MP, VL, MM); 2♂ (FSCV), 6 km SE Novokayakent, 42°21'29"N / 48°02'54"E, 27.06.2018 (MP, VL, MM); 1♂ (FSCV), Derbent, 42°5'54"N / 48°17'17"E, 28–29.06.2018 (MP, VL, MM).

**Distribution.** Russia (North Caucasus, including Dagestan\*, European part, Crimea); North Africa, Europe, Georgia, Azerbaijan, Turkey, Syria, Israel, Iran, Kazakhstan.

#### *Colletes squamosus* group *Colletes wollmanni* Noskiewicz, 1936

*Colletes wollmanni* Noskiewicz, 1936: 188–191, ♀, ♂ (lectotype: ♂, designated by Proshchalykin, Kuhlmann, 2015b: 550, Baigak bei Djulek, Kazakhstan).

**Material.** 2♂ (ZISP), 10 km W Agloba, Kamishchai River valley, 41°54'29"N / 48°13'59"E, 21.08.2017 (MM); 1♀ (FSCV), same locality, 29.06.2018 (MP, VL, MM); 1♀, 1♂ (FSCV), 20 km W Makhachkala, Barkhan Sarykum, 43°0'36"N / 47°14'13"E, 23–24.06.2018 (MP, VL, MM); 14♀, 5♂ (FSCV, ZISP), near Talgi vill., 42°52'35"N / 47°26'24"E, 25.06.2018 (MP, VL, MM, YA).

**Distribution.** Russia (Dagestan\*); Azerbaijan, Iran, Pakistan, Central Asia, China.

#### *Colletes mixtus* group *Colletes kozlovi* Friese, 1913

*Colletes kozlovi* Friese, 1913: 59, ♀, ♂ (lectotype: ♂, designated by Proshchalykin, 2017a: 35, Mondy, Republic of Buryatia, Russia); Kuhlmann, Proshchalykin, 2014: 213 (Aleksandro-Nevskoe; Krainovka; between the mouths of Sulak and Terek rivers).

**Material.** 3♀, 2♂ (ZISP), Aleksandr Nevskiy station, Kizlyar [43°51'N / 46°43'E], 11.06.1927 (Olsuf'ev); 2♂ (ZISP), 3 km NW Primorsky, Samur Reserve, 41°52'0"N / 48°33'23"E, 6.06.2017 (MM); 1♀ (FSCV), 23 km N Kochubei, 44°36'4"N / 46°34'52"E, 17.06.2018 (MP, VL, MM); 2♀, 7♂ (FSCV), 13 km NE Kochubei, 44°26'35"N / 46°41'31"E, 18.06.2018 (MP, VL, MM); 5♀ (FSCV), Kochubei, 44°23'55"N / 46°32'29"E, 18.06.2018 (MP, VL, MM); 1♀ (FSCV), 22 km SW Terekli-Mekteb, 44°2'35"N / 45°38'56"E, 21.06.2018 (MP, VL, MM); 1♀, 2♂ (FSCV), 6 km SE Novokayakent, 42°21'29"N / 48°02'54"E, 27.06.2018 (MP, VL, MM); 3♀ (FSCV), 10 km W Agloba, Kamishchai River valley, 41°54'29"N / 48°13'59"E, 29.06.2018 (MP, VL, MM).

**Distribution.** Russia (North Caucasus, European part); Azerbaijan, Central Asia, Kazakhstan, China, Mongolia.

#### *Colletes fodiens* group *Colletes edentulus* Noskiewicz, 1936

*Colletes edentulus* Noskiewicz, 1936: 329–330, ♂ (holotype: ♂, Araxestal, Armenia).

**Material.** 2♂ (FSCV), 6 km NW Rutul, near Kufa vill., 41°33'55"N / 47°21'43"E, 1.07.2018 (MP, VL, MM).

**Distribution.** Russia (Dagestan)\*; Caucasus, Turkey, Turkmenistan.

#### *Colletes fodiens* (Fourcroy, 1785)

*Apis fodiens* Fourcroy, 1785: 444, ♀ (syntypes: ♀♀, northern France).

**Material.** 4♂ (FSCV), 6 km NW Rutul, near Kufa vill., 41°33'55"N / 47°21'43"E, 1.07.2018 (MP, VL, MM).

**Distribution.** Russia (North Caucasus, including Dagestan\*, European part, Urals, Siberia); Europe, Turkey, Azerbaijan, Iran, Kazakhstan, Kyrgyzstan, Pakistan, Mongolia.

#### *Colletes similis* Schenck, 1853

*Colletes similis* Schenck, 1853: 172, ♂ (syntypes: ♂♂, Germany); Kuhlmann, Proshchalykin, 2014: 217 (Sovetskoe, Avarscoe Koisu River).

**Distribution.** Russia (North Caucasus, European part, Crimea, Urals, Siberia); North Africa, Europe, Caucasus, Turkey, Syria, Jordan, Israel, Central Asia, China.

#### *Colletes tuberculatus* Morawitz, 1893

*Colletes tuberculatus* Morawitz, 1893: 80–81, ♀, ♂ (lectotype: ♂, designated by Proshchalykin, Kuhlmann, 2015b: 550, Jagnob, Varsaut, Tajikistan).

**Material.** 1♀ (FSCV), 20 km W Makhachkala, Barkhan Sarykum, 43°0'36"N / 47°14'13"E, 23–24.06.2018 (MP, VL, MM); 1♂ (FSCV), 6 km SW Gubden vill., 25.06.2018, 42°32'40"N / 47°29'59"E (MP, VL, MM); 1♂ (FSCV), Derbent, 42°5'54"N / 48°17'17"E, 28–29.06.2018 (MP, VL, MM); 1♀, 1♂ (FSCV), 6 km NW Rutul, near Kufa vill., 41°33'55"N / 47°21'43"E, 1.07.2018 (MP, VL, MM).

**Distribution.** Russia (North Caucasus\*, European part, Crimea); North Africa, Europe, Georgia, Armenia, Turkey, Jordan, Israel, Iran, Pakistan, Central Asia.

#### *Colletes senilis* group *Colletes mlokossewiczi* Radoszkowski, 1891

*Colletes mlokossewiczi* Radoszkowski, 1891: 254, ♀, ♂ (lectotype: ♂, designated by Proshchalykin, 2017a: 38, “Caucasus”); Kuhlmann, Proshchalykin, 2014: 220 (Sovetskoe, Avarscoe Koisu River).

**Material.** 2♀, 2♂ (FSCV, ZISP), 6 km SW Gubden vill., 42°32'40"N / 47°29'59"E, 25.06.2018 (MP, VL, MM, YA); 1♀, 4♂ (FSCV, ZISP), 6 km NW Rutul, near Kufa vill., 41°33'55"N / 47°21'43"E, 1.07.2018 (MP, VL, MM, YA).

**Distribution.** Russia (North Caucasus, European part, Crimea, Urals); Europe, Georgia, Azerbaijan, Turkey, Central Asia.

#### *Colletes clypearis* group

*Colletes asiaticus* Kuhlmann, 1999

*Colletes grisescens* Noskiewicz, 1936 (nom. praeocc., nec Cockerell, 1930: 4): 442–444, ♂ (syntypes: 4♂, Erdschias Dag [Erciyes Dağı], Turkey).

*Colletes asiaticus* Kuhlmann, 1999: 73 (replacement name for *Colletes grisescens* Noskiewicz, 1936).

**Material.** 1♂ (ZISP), Kumtorkalinskiy District, Narat-Tyube Ridge, 42°59'N / 47°11'E, 2.06.2017 (MM) (ZISP); 4♂ (FSCV, RCMK), 6 km NW Rutul, near Kufa vill., 41°33'55"N / 47°21'43"E, 1.07.2018 (MP, VL, MM).

**Distribution.** Russia (Dagestan)\*, Azerbaijan, Turkey, Iran, Turkmenistan.

*Colletes floralis* Eversmann, 1852

*Colletes floralis* Eversmann, 1852: 46, ♀, ♂ (lectotype: ♂, designated by Proshchalykin, Astafurova, 2016: 4, Spasskoe, Orenburg Region, Russia).

**Material.** 1♂ (FSCV), 6 km NW Rutul, near Kufa vill., 41°33'55"N / 47°21'43"E, 1.07.2018 (MP, VL, MM).

**Distribution.** Russia (North Caucasus, including Dagestan\*, European part, Urals, Siberia, Far East); Georgia, Turkey, Iran, Central Asia, India, Mongolia, Japan.

#### *Colletes marginatus* group

*Colletes chengtehensis* Yasumatsu, 1935

*Colletes chengtehensis* Yasumatsu, 1935: 1–2, 35–36, Plate 1, ♂ (holotype: ♂, Jehol, Cheng-teh, China); Kuhlmann, Proshchalykin, 2014: 227 (Novobiryuzyak, Krainovka).

*Colletes pallescens*: Skhirtladze, 1984: 130 (Adzhi Lake).

**Material.** 1♀ (FSCV), 3 km SW Novoterechnoe vill., 43°59'44"N / 47°19'35"E, 20.06.2018 (MP, VL, MM); 1♂ (FSCV), 20 km W Makhachkala, Barkhan Sarykum, 43°0'36"N / 47°14'13"E, 23–24.06.2018 (MP, VL, MM).

**Distribution.** Russia (North Caucasus, European part, Crimea, Urals, Siberia); Europe, Georgia, Azerbaijan, Iran, Central Asia, China, Mongolia.

*Colletes hethiticus* Warncke, 1978

*Colletes marginatus hethiticus* Warncke, 1978: 358–359, ♀, ♂ (holotype: ♂, Konya, Turkey).

**Material.** 7♀ (FSCV), 13 km NE Kochubei, 44°26'35"N / 46°41'31"E, 18.06.2018 (MP, VL, MM); 1♀ (FSCV), Kochubei, 44°23'55"N / 46°32'29"E, 18.06.2018 (MP, VL, MM); 9♀ (FSCV), 20 km W Makhachkala, Barkhan Sarykum, 43°0'36"N / 47°14'13"E, 23–24, 26.06.2018 (MP, VL, MM); 6♀, 1♂ (FSCV, RCMK), near Talgi vill., 42°52'35"N / 47°26'24"E, 25.06.2018 (MP, VL, MM, YA).

**Distribution.** Russia (Dagestan)\*; Romania, Bulgaria, Turkey, Azerbaijan.

*Colletes marginatus* Smith, 1846

*Colletes marginatus* Smith, 1846: 1277–1278, ♀, ♂ (syntypes: ♀♀, ♂♂, England); Skhirtladze, 1984: 130 (Adzhi Lake).

**Distribution.** Russia (North Caucasus, European part, Urals, Siberia); Europe, Georgia, Turkey.

#### *Colletes succinctus* group

*Colletes brevigena* Noskiewicz, 1936

*Colletes succinctus brevigena* Noskiewicz, 1936: 480–481, ♀, ♂ (syntypes: ♀♀, ♂♂, "Balkanhalbinsel, die Inseln des östlichen Mittelmeeres, Kleinasien, Persien, Kaukasus").

**Material.** 3♂ (FSCV, RCMK), near Talgi vill., 42°52'35"N / 47°26'24"E, 25.06.2018 (MP, VL, MM).

**Distribution.** Russia (North Caucasus\*, Crimea); Europe, Turkey, Azerbaijan, Iran.

#### *Colletes albomaculatus* group

*Colletes albomaculatus* (Lucas, 1849)

*Halictus albomaculatus* Lucas, 1849: 183, ♀ (syntypes: ♀♀, Algeria).

*Colletes spectabilis*: Morawitz, 1874: 174 (Derbent); Skhirtladze, 1984: 130 (Derbent).

*Colletes albomaculatus*: Kuhlmann, Proshchalykin, 2016: 380 (Derbent).

**Material.** 8♀, 4♂ (FSCV), 6 km NW Rutul, near Kufa vill., 41°33'55"N / 47°21'43"E, 1.07.2018 (MP, VL, MM).

**Distribution.** Russia (North Caucasus, European part, Crimea); North Africa, Europe, Caucasus, Turkey, Syria, Jordan, Iran, Tajikistan, Kyrgyzstan.

*Colletes dorsalis* Morawitz, 1888

*Colletes dorsalis* Morawitz, 1888: 242–243, ♀ (holotype: ♀, "Turkestan, in valle Zerafschan" [Uzbekistan/Tajikistan]).

**Material.** 1♂ (FSCV), 6 km NW Rutul, near Kufa vill., 41°33'55"N / 47°21'43"E, 1.07.2018 (MP, VL, MM).

**Distribution.** Russia (Dagestan)\*; Caucasus, Turkey, Central Asia, Iran.

#### *Colletes uralensis* group

*Colletes uralensis* Noskiewicz, 1936

*Colletes uralensis* Noskiewicz, 1936: 251–256, ♀, ♂ (lectotype: ♂, designated by Kuhlmann, 2000: 171, "Temir, u. Ural, obl. mog. Daumtschar", Kazakhstan).

**Material.** 1♂ (RCMK), 20 km W Makhachkala, Barkhan Sarykum, 43°0'36"N / 47°14'13"E, 31.05.2017 (MM).

**Distribution.** Russia (Dagestan)\*; Kazakhstan, Tajikistan, China.

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