

**A new species of the genus *Colletes* Latreille, 1802  
(Hymenoptera, Colletidae) from Kazakhstan**

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**Новый вид рода *Colletes* Latreille, 1802  
(Hymenoptera, Colletidae) из Казахстана**

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**Abstract.** *Colletes kipyatkovi* Kuhlmann et Proshchalykin, **sp. n.** is described and illustrated from Kazakhstan (Zhambyl and Kyzylorda Provinces).

**Key words.** Taxonomy, bees, Asia, Palaearctic Region.

**Резюме.** Дано описание и иллюстрации нового вида *Colletes kipyatkovi* Kuhlmann et Proshchalykin, **sp. n.** из Казахстана (Жамбылская и Кызылординская области).

**Ключевые слова.** Таксономия, пчелы, Азия, Палеарктика.

### Introduction

The bee genus *Colletes* Latreille, 1802 is characterized by the outwardly arcuate posterior part of the second recurrent vein, by the bilobate glossa, and by the base of the propodeum that has a short sub-horizontal to vertical basal zone, usually limited posteriorly by a carina or sharp change in slope or sculpture, and divided by a longitudinal carina (Michener, 1989). *Colletes* currently includes about 470 described species with an estimated total of about 700 species (Kuhlmann, Proshchalykin, 2011) from all continents except Antarctica, Australia, Madagascar and Southeast Asia (Michener, 2007). More than 200 species are known from the Palaearctic Region with their centre of diversity in Middle Asia (Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan) (Kuhlmann, 2005, 2006).

The bee fauna of Kazakhstan is very rich with 46 species of *Colletes* recorded from this country so far (Morawitz, 1876; Noskiewicz, 1936, 1958; Popov, 1934, 1949, 1967; Ponomareva, 1960; Kuhlmann, Dorn, 2002; Kuhlmann, 2003, 2005, 2009). *Colletes cretaceus* Morawitz, *C. arenarius* Morawitz and *C. flavicornis* Morawitz were the first three species to be described from Kazakhstan by Morawitz (1876) but the discovery of a substantial number of additional species can be expected. Based on a comprehensive study of specimens in the collection of the Zoological Institute of the Russian Academy of Sciences (St. Petersburg, Russia) we here describe a new species of *Colletes* from Kazakhstan (Zhambyl and Kyzylorda Provinces).

## Material and methods

Terminology for the description of species is based on Michener (2007) for general morphology. Puncture density is expressed as the relationship between puncture diameter ( $d$ ) and the space between them ( $i$ ), such as  $i = 1.5d$  or  $i < d$ . The following abbreviations were used for morphological structures: T – metasomal tergum, S – metasomal sternum, Bl – body length. Measurements follow the guidelines of Michener (2007). Body length was measured from the vertex to the apex of the body.

Acronyms for collections from which specimens were borrowed or are deposited are as follows: ZISP – Zoological Institute, Russian Academy of Sciences, St. Petersburg, Russia (S. Belokobylskij, Yu. Astafurova); RCMK – research collection of Michael Kuhlmann, London, UK.

## Taxonomic part

### *Colletes kipyatkovi* Kuhlmann et Proshchalykin sp. n.

(Figs 1–4)

*Type material.* Holotype, female, Kazakhstan, Zhambyl Province, 12 km Sarybarak, Peski Muyunkum [Muyunkum Sands] [71°28'E 43°22'N], 2.VI.1978, leg. Yu. Pesenko (ZISP).

Paratypes: 1 female, same dates as holotype (RCMK); 1 female, Kazakhstan, Kyzylorda Province, 180 km SW Aralsk, Barsakelmes, Aral sea [59°54'E 45°38'N], 25.V.1983, leg. D. Piryulin (RCMK).

*Description.* Female. Bl = 8.0–9.0 mm. Head. Head wider than long. Integument black except tip of mandible reddish-brown. Face except clypeus densely covered with long, whitish-grey, erect hairs (Fig. 2). Clypeus with a distinct longitudinal median depression, supraclypeal area convex in profile. Clypeus finely punctate, apically with more scattered punctures ( $i = 1d$ ) and dorsally more densely punctate ( $i = 0.5d$ ), in median depression punctation slightly finer and denser ( $i < 0.5d$ ); surface between punctures smooth and shiny (Fig. 2). Malar area medially about 1/3 as long as width of mandible base, finely striate. Antenna black, ventrally dark brown. Mesosoma. Integument black. Mesoscutal disc between punctures smooth and shiny; disc impunctate to very sparsely and finely punctate ( $i = 5.0d$ ) (Fig. 3). Scutellum finely and sparsely punctate ( $i = 1–2d$ ), surface smooth and shiny (Fig. 3). Mesoscutum, mesepisternum and propodeum covered with white to greyish-white, erect hairs (Fig. 1, 3). Wings. Very slightly yellowish; wing venation basally yellowish-brown, apically dark brown. Stigma yellowish-brown. Legs. Integument dark reddish-brown. Vestiture whitish to greyish, scopa white. Metasoma. Integument black except apical margins of terga yellowish translucent (Fig. 4). T1 anteriorly densely covered with short appressed hairs and a few long, erect white hairs; discs of terga with few short and almost invisible hairs; apical tergal hair band of T1 narrow, on the following terga broader (Figs 1, 4). Terga densely and very finely punctate ( $i < d$ ), between punctures smooth and shiny (Fig. 4).

Male. Unknown.

*Diagnosis.* The affiliation of *C. kipyatkovi* sp. n. with a species-group is currently uncertain because the male is unknown. The female is characterized by a combination of the following characters: clypeus as in Fig. 2, disc of mesoscutum almost impunctate and polished, propodeum laterally not densely covered by short appressed hairs, metasomal tergum 1 on sloping basal part densely covered with short appressed hairs and with few erect hairs on disc (Fig. 4), all metasomal terga densely and finely punctate (Fig. 4).

*Etymology.* This species is dedicated to the late Professor Vladilen Evgenevich Kipyatkov, who was an expert in the natural history and behaviour of social insects.

*Distribution.* Kazakhstan.

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**Figs 1–4.** *Colletes kipyatkovi* sp. n., holotype, female. 1 – habitus; 2 – head; 3 – scutum and scutellum; 4 – metasomal terga 1 and 2. Scale bar: 1.0 mm.

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