



## The type specimens of bees (Hymenoptera: Apoidea) deposited in the Zoological Institute of the Russian Academy of Sciences, St. Petersburg. Contribution VI. Family Andrenidae, genus *Andrena* Fabricius, 1775, taxa described by V. Popov

YULIA V. ASTAFUROVA<sup>1</sup>, MAXIM YU. PROSHCHALYKIN<sup>2,4</sup> & DMITRY A. SIDOROV<sup>3</sup>

<sup>1</sup>Zoological Institute, Russian Academy of Sciences, Universitetskaya Nab., 1, Saint Petersburg, 199034, Russia.

✉ [Yulia.Astafurova@zin.ru](mailto:Yulia.Astafurova@zin.ru); <https://orcid.org/0000-0003-0557-7792>

<sup>2</sup>Federal Scientific Center of the East Asia Terrestrial Biodiversity, Far Eastern Branch of Russian Academy of Sciences, Vladivostok-22, 690022, Russia.

<sup>3</sup>Kemerovo State University, Kemerovo, 650000, Russia.

✉ [raddimus@yandex.ru](mailto:raddimus@yandex.ru); <https://orcid.org/0000-0002-5057-7436>

<sup>4</sup>Corresponding author. ✉ [proshchalikin@biosoil.ru](mailto:proshchalikin@biosoil.ru); <https://orcid.org/0000-0001-7870-8226>

### Abstract

The type specimens for names of bee taxa in the genus *Andrena* Fabricius, 1775, described by V.B. Popov and which are deposited in the Zoological Institute, Russian Academy of Sciences (St. Petersburg) are reviewed. Primary types of 19 taxa are illustrated and detailed information is provided. New synonymies are established for *Andrena chengtehensis* Yasumatsu, 1935 (= *A. nova* Popov, 1940, **syn. nov.**) and *A. skorikovi* Popov, 1940 (= *A. firuzaensis* Popov, 1940, **syn. nov.**; = *A. firuzaensis popovella* Gusenleitner & Schwarz, 2002, **syn. nov.**; = *Andrena iranella* Popov, 1940, **syn. nov.**). Based on study of the the lectotype, we consider *Andrena discophora transhissarica* Popov, 1958, **stat. rev.**, at the subspecific level, and not as a distinct species, as opposed to Shebl & Tadauchi (2011). Lectotypes are here designated for the following twelve nominal taxa: *Andrena alashanica* Popov, 1949, *A. discophora transhissarica* Popov, 1958, *A. eoa* Popov, 1949, *A. fedtschenkoi djumensis* Popov, 1947, *A. firuzaensis* Popov, 1940, *A. iranella* Popov, 1940, *A. lebedevi* Popov, 1940, *A. nanshanica* Popov, 1940, *A. nova* Popov, 1940, *A. shakuensis* Popov, 1949, *A. subconsobrina* Popov, 1949, and *A. tadzhica* Popov, 1949.

**Key words:** Anthophila, Apiformes, lectotypes, Palaearctic region, taxonomy

### Introduction

The present paper is the sixth part of a series of works (Astafurova & Proshchalykin 2018, 2019, 2020a; Astafurova *et al.* 2021, 2022b) dealing with the primary type specimens of bee taxa deposited in the Zoological Institute of the Russian Academy of Sciences, St. Petersburg [ZISP], the main goal of which is to make the ZISP collection of bees more accessible and useful to scientists (see also Proshchalykin & Kuhlmann 2015; Dathe & Proshchalykin 2017; Astafurova & Proshchalykin 2020b and Astafurova *et al.* 2022a). A detailed history of the formation of this collection and the description of its current state are provided in the first part of the series (Astafurova & Proshchalykin 2018).

Vladimir B. Popov (1902–1960) is one of the most famous Soviet melittologists. In total, Popov published 109 papers in which he described two new tribes, 13 genera, 17 subgenera, 102 species, 20 new subspecies and 38 varieties of bees (Pesenko & Astafurova 2003). The genus *Andrena* is represented in four of Popov's publications (Popov 1940, 1947, 1949, 1958), including 16 species and three subspecies new to science (Table 1). Unfortunately, Popov designated the holotype for only six taxa (Table 1); in other cases, all type specimens were syntypes. Anna Z. Osytshnjuk later labeled most of these specimens as “lectotype” or “paralectotype” and even “holotype” or “paratype”. Most of these lectotype or incorrect holotype designations by Osytshnjuk were not published because of her tragic death in 1998. These designations were validated in a subsequent publication (Proshchalykin *et al.* 2017) and also in the current work.

**Paratypes:** 1 ♀, Irkutsk, V.E. Yakovlev // Coll. A. Semenov-Tian-Shansky // *Andrena transbaicalica* sp. n., ♀, Cotype, V. Popov det. [1]936; 1 ♀, Чита, Кайдаловка, Забайк.[алье] [Chita, Kaidalovka River], 26-29.V.[1]912, Валуева [Valueva leg.] // *Andr. transbaicalica* sp. n., ♀, Cotype, V. Popov det. [1]936; 1 ♀, Кирма на Амурь, Бурья-Усури [Kirma on Amur, Bureya-Ussuri Rivers], Маакъ [Maak leg.] // 22.96 <green label> *Andr. transbaicalica* sp. n., ♀, Cotype, V. Popov det. [1]936; 1 ♀, Яковлевка, Спас.[ского] у.[езда], Усур.[ийский] кр.[ай] [Yakovlevka, Ussury territory], 12.VII.[1]926, Дьяконов, Филиппев [D'yakonov, Filip'ev leg.] // Пасека Квашука [apiary of Kvashuk] // *Andr. transbaicalica* sp. n., ♀, V. Cotype, V. Popov det. [1]936; 1 ♀, Зеленый бор, Прим.[орская] обл.[асть] [Zeleny Bor, Primorskiy Terr.] 27.VI.1913, П. Солдатов [P. Soldatov leg.] // *Andr. transbaicalica* sp. n., ♀, Cotype, V. Popov det. [1]936 // Paratypus *Andrena transbaicalica* Popov <identical red labels on each paratype specimen>.

**Current status.** *Andrena (Plastandrena) transbaicalica* Popov, 1949 (according to Xu & Tadauchi 2011: 65).

**Remark.** Description of male: Hirashima 1957: 51, as *Andrena astragalina* Hirashima, 1957 (synonymized by Osytsnjuk 1995: 493).

**Distribution.** Russia (Siberia, Far East), northern China, South Korea, Japan.

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