

The bees of the tribe Anthidiini (Hymenoptera, Megachilidae) described by Ferdinand Morawitz from the collection of Aleksey Fedtschenko

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Abstract

The type specimens of the tribe Anthidiini described by Ferdinand Morawitz from the collection of Aleksey Fedtschenko deposited in the Zoological Museum of the Moscow State University and in the Zoological Institute, Russian Academy of Sciences St. Petersburg (Russia), are critically reviewed. Precise information with illustrations of types for ten taxa is provided, of these eight species are valid and two are probably synonyms. Lectotypes are here designated for *Anthidium fedtschenkoi* Morawitz, 1875, *A. forcipatum* Morawitz, 1875, and *A. ruficorne* Morawitz, 1875. The holotypes of *Anthidium nigrinum* Morawitz, 1875 and *A. petechiale* Morawitz, 1875 were not found and are probably lost.

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

Introduction

The present paper is the third part of a series of works dealing with the bee taxa described by Ferdinand Morawitz from the collection of Aleksey Fedtschenko deposited in the Zoological Museum of the Moscow State University, Moscow (ZMMU) and the Zoological Institute of the Russian Academy of Sciences, St. Petersburg (ZISP). In the first and second parts, the family Halictidae and the genus *Andrena* were considered (Astafurova & Proshchalykin 2020; Astafurova *et al.* 2022). The main goal of this work is to make Fedtschenko's collection of bees more accessible and useful to scientists.

Exactly 150 years ago (1875), the first part of Ferdinand Morawitz's critical study on the bees collected by Aleksey Fedtschenko's 1869–1871 expeditions in “Turkestan” was published. In the first volume, “Apidae genuinae” (Morawitz 1875), Morawitz treated a total of 255 species of numerous genera, of which many species were described as new. The species treatments are of a high professional standard, the localities are precisely documented (A. Fedtschenko 1871; O. Fedtschenko 1874; Baker 2004; Kuhlmann 2005; Dathe & Proshchalykin 2017) and the type series have been carefully conserved over a long period, generally in the collections of ZMMU and ZISP. To this day, these remain some of the most important manuscripts on bees of Central Asia.

The Anthidiini is represented in Morawitz's 1875 publication by the genus *Anthidium* Fabricius, 1804, comprising 17 species (Nos. 181–197). Only seven species were previously known, while the remaining ten were newly described (Table 1). The first attempt to recognise the true type material of Fedtschenko's Anthidiini was made by K. Warneke, a teacher in Dachau (Germany), who visited ZISP in 1978. He designated lectotypes for three of Morawitz's nominal taxa (*Anthidium cribratum*, *A. limbiferum* and *A. obscuratum*) (Warneke 1980). In 1992, G. van der Zanden continued the study of Anthidiini in the Fedtschenko's collection at ZMMU, designating lectotypes for *Anthidium fedtschenkoi*, *A. forcipatum* and *A. ruficorne*. However, these designations were not published.

9. *Anthidium ruficorne* Morawitz, 1875

(Fig. 7)

Anthidium ruficorne Morawitz, 1875: 124, ♀, ♂.

Type locality: Kyzylkum Desert (Kazakhstan).

Published locality: “Dyusebay”, “steppe between Syr-Darja and Tashkent”.

Lectotype (designated here): ♀, 12. [pink square with red strip =12.V.1871] // Кизилъкумъ [Kazakhstan, Kyzylkum Desert, Dyusebay well, ≈42°04'N, 67°33'] // *Anthidium ruficorne* Mor. ♀ [handwritten by F. Morawitz] // Paralectotype det. vd Zanden 1993 <red label> // Lectotypus, design. Ivlev et al., 2025 <red label> // Москва Зоологический Музей МГУ [ZMMU].

Paralectotype: 1 ♂, 20. [pink square with red strip =20.V.1871] // Степь м.[жду] С.д.[Сыр-Дарьей] и Т[ашкентом] [Uzbekistan, steppe between Syr-Darja River and Tashkent] // *Anthidium ruficorne* Mor. ♂ [handwritten by F. Morawitz] // Lectotype det. vd Zanden 1993 <red label> // Paralectotypus, *Anthidium ruficorne* Mor. design. Ivlev et al., 2025 <red label> // Москва Зоологический Музей МГУ [ZMMU].

Current status. *Icterantheidium ruficorne* (Morawitz, 1875) (according to Pasteels 1969: 67).

Distribution. South Kazakhstan, Uzbekistan, Iran (Morawitz 1875; Nadimi *et al.* 2014).

10. *Anthidium unicum* Morawitz, 1875

(Fig. 8)

Anthidium unicum Morawitz, 1875: 121 (key), 129, ♂.

Type locality: Samarkand (Uzbekistan).

Published locality: “Samarkand”.

Holotype: ♂, 1. [blue square =1.VIII.1869] // Самаркандъ [Uzbekistan, Samarkand, 66°57'E 39°39'N] // *Anthidium unicum* Morawitz [handwritten by F. Morawitz] // Holotypus *Anthidium unicum* Mor. det. vd. Zanden '93 [1993] <red label> // Москва Зоологический Музей МГУ [ZMMU].

Current status. *Anthidium* (*Turkantheidium*) *unicum* Morawitz, 1875 (according to Warncke, 1980: 183).

Remark. Description of female: Popov 1952: 101.

Distribution. Uzbekistan, Tajikistan, Turkmenistan (Morawitz 1875; Popov 1949, 1952).

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