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New species of the genus *Eupithecia* Curtis (Lepidoptera, Geometridae, Larentiinae) from Iran

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Abstract

Five new species of the geometrid genus *Eupithecia* are described from Iran: *Eupithecia brandti* sp. n., *Eupithecia truschi* sp. n., *Eupithecia zagrosata* sp. n., *Eupithecia persidis* sp. n. and *Eupithecia basurmanca* sp. n. Published data on the Iranian species of *Eupithecia* are presented.

Key words: Iran, Lepidoptera, Geometridae, *Eupithecia*, taxonomy, new species, *Eupithecia brandti*, *Eupithecia truschi*, *Eupithecia zagrosata*, *Eupithecia persidis*, *Eupithecia basurmanca*.

Introduction

Moths of the tribe *Eupitheciini* occur almost worldwide, although they are most diverse in mountain regions. The nominate genus *Eupithecia* is one of the most species-rich genera of Lepidoptera, with about 1400 species described. The purpose of this paper is to describe five new species of *Eupithecia* from Iran, and provide an overview of the genus in that country. To date, 73 species of *Eupithecia* have been recorded. This paper is based mainly on a reexamination of the extensive collections in the Staatliches Museum für Naturkunde Karlsruhe (Germany), Zoologische Staatssammlung München (Germany) and Naturhistoriska Riksmuseet (Sweden), as part of an ongoing revision of the *Eupithecia* of Iran and Afghanistan (see also Mironov & Ratzel 2012b).

A few previous publications have treated the Iranian *Eupithecia*, but information from the irano-turanian highlands is limited. Christoph (1877, 1885) described nine species of *Eupithecia* mainly from the adjacent Transcaucasian (Armenia, Karabagh and Azerbaijan) and Transcaspian (Turkmenistan, the so-called Achal-Tekke or Akkal-Tekke Region, including western parts of the Kopet-Dagh mts.) territories of the former Russian Empire. However, he described only one species, *Eupithecia sutiliata*, from Persia (“Schahrud” [Shährüd]). Dietze (1904, 1906, 1908, 1910) described four new species of *Eupithecia* (*E. relaxata*, *E. laterata*, *E. mesogrammata* and *E. subtilis*) based on material collected in 1898 by Funke in Shahkuh (near Schährüd). This interesting locality is well described in the publication “*Shahkuh—ein Traum wird wahr*” [Shahkuh = a dream comes true] Naumann (2000). In 1936–1938, F. Brandt collected many Lepidoptera in Iran, including Geometridae, and subsequently his brother Wilhelm Brandt (1938, 1941) published 35 species of *Eupithecia* from Iran and described 23 new species and four new subspecies of this genus (specimens deposited in the Museum of Stockholm (Naturhistoriska Riksmuseet, NHRS). Bytinski-Salz & Wilhelm Brandt (1937) and Schwingenschuss (1939) recorded 15 *Eupithecia* and described three new species (*E. prouti*, *E. undulifera* and *E. tarensis*) and two new subspecies from Iran. Reisser (1958) discussed the Austrian Iran expedition in 1949 and 1950 and mentioned three *Eupithecia* species. Schütze (1960, 1961c) recorded 18 species of *Eupithecia* for Iran, including seven new species and one new subspecies of *Eupithecia* described by him. Somewhat later, Vojnits (1978, 1982, 1988) described seven new species and one new subspecies of this genus from Iran (*E. eberti*, *E. relativa*, *E. inexercita*, *E. subvulgata*, *E. subvaticina*, *E. elbursi*, *E. edaphopteryx* and *E. xanthomixta derbendi*), mainly from the Alborz range. Because of the Islamic revolution in 1979, the territory of Iran was largely inaccessible for collecting activities by European entomologists until the end of the 1990s. In 2001 and 2003 Austrian entomologists continued their tradition of lepidopteran