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New species of plume moths of the genus *Agdistis* Hübner, 1825 (Lepidoptera: Pterophoridae: Agdistinae) from southern Africa. 7

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Abstract

Four new species of *Agdistis* (Pterophoridae) are described from Southern Africa: *Agdistis sergeii* Kovtunovich & Ustjuzhanin **sp. nov.**, *Agdistis wolframii* Kovtunovich & Ustjuzhanin **sp. nov.**, *Agdistis pseudomeyi* Kovtunovich & Ustjuzhanin **sp. nov.** and *Agdistis ruhanga* Kovtunovich & Ustjuzhanin **sp. nov.** In addition, descriptions and images of the previously unknown female genitalia of three species are given: *A. insolitus* Kovtunovich & Ustjuzhanin, 2010, *A. meyi* Arenberger, 2008 and *A. toliarensis* Bigot, 1987. The male is described to a species possibly *A. piccolo* Gielis, 1990, of which only female was previously known.

Key words: Pterophoridae, Southern Africa, *Agdistis*, plume moths, new species

Introduction

The genus *Agdistis* Hübner (Pterophoridae) is richly represented in Africa, especially in desert and semi-desert areas of southern parts of the continent. The diversity of species of this genus is impressive. Over the past three decades, in southern Africa alone 50 new species have been described (Arenberger 1986, 1988, 1996, 2001, 2008, 2009, 2010; Gielis 1986, 1990; Kovtunovich & Ustjuzhanin 2009 a, b, 2010 a, b, c, 2015). The present article is seventh by the present authors in a series treating the South African fauna of this genus.

The larvae of *Agdistis* feed on the leaves of Tamaricaceae, Frankeniaceae, Asteraceae (*Artemisia*) and some other plant families. The immature stages of African species are poorly known. In southern Africa adult moths can be found throughout the year, though the most favorable flight periods are October–December and March–April. Adult moths are active at night and are well attracted to artificial light; during the day they hide from the heat low among vegetation and fly out only before nightfall. The highest concentration of *Agdistis* species in southern Africa is known from the western part of the Republic of South Africa (Namaqualand), and Namibia. Externally, *Agdistis* species are similar to each other and hardly distinguishable. The genitalia, especially in males, display a great structural variety that facilitates the species identification.

Material and methods

This publication is based on material from the Museum für Naturkunde Leibniz-Institut für Evolutions- und Biodiversitätsforschung (MFN, Berlin, Germany), Transvaal museum (DNMNH, Pretoria, RSA) and also includes material from expeditions to the Southern Africa undertaken by the authors and their colleagues on 2009–2010. Holotypes and paratypes of the species described are stored in the museums listed above, in the Natural History Museum (BMNH, London, UK), in the Zoological Institute Museum (ZISP, Russia, St. Petersburg), and in the research collection of P. Ustjuzhanin and V. Kovtunovich (CUK).