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The first records of quill mites of the family Syringophilidae (Acariformes: Prostigmata: Cheyletoidea) from trogoniform birds (Aves: Trogoniformes)

MACIEJ SKORACKI^{1,4}, SERGEY V. MIRONOV² & MARKUS UNSOELD³

¹ Department of Animal Morphology, Adam Mickiewicz University, Faculty of Biology, Umultowska 89, 61–614 Poznań, Poland.
E-mail: skoracki@amu.edu.pl

² Zoological Institute, Russian Academy of Sciences, Universitetskaya emb. 1, 199034 St. Petersburg, Russia

³ Ornithological Section, Bavarian State Collection of Zoology, 81247 Munich, Germany

⁴ Corresponding author

Abstract

Two new species of quill mites of the family Syringophilidae parasitising trogoniform birds (Trogoniformes: Trogonidae) are described: *Syringophiloidus quetzali* sp. nov. from *Pharomachrus mocinno* Llave and *Ph. antisianus* (Orbigny); and *Syringophilopsis trogoni* sp. nov. from *Trogon citreolus* Gould and *T. melanocephalus* Gould. These findings are the first records of syringophilids associated with trogoniform birds.

Key words: Acari, Syringophilidae, quill mites, ectoparasites, Trogoniformes

Introduction

Quill mites of the family Syringophilidae (Acari: Prostigmata) are permanent and highly specialized parasites of birds. Presently, this family includes over than 280 species grouped in 54 genera and two subfamilies (Kethley 1970; Skoracki *et al.* 2012). To date, syringophilids are known from hosts of 22 orders belonging both to neognathous and palaeognathous birds. Among them, over than 80 percents of currently recognized syringophilid genera are restricted to particular bird orders and only 10 genera occur on birds of several different orders (Skoracki *et al.* 2012).

In this paper we describe two new species belonging to the genera *Syringophiloidus* Kethley, 1970 and *Syringophilopsis* Kethley, 1970 from avian hosts of the order Trogoniformes. Syringophilid mites are recorded from birds of this order for the first time.

Materials and methods

The material was collected by MS and MU from dry bird skins housed in the Bavarian State Collection of Zoology, Munich, Germany and by SVM in the Chamela Biological Station of the National Autonomous University of Mexico, located in the Chamela - Cuixmala Biosphere Reserve, Jalisco, Mexico. One specimen was loaned from the Field Museum of Natural History, Chicago, United States.

Mites were examined under an Olympus BH-2 light microscope with differential interference contrast (DIC) optics. Drawings were made with the drawing attachment. All measurements are given in micrometres. Measurements (ranges) of paratypes are given in brackets following data for a holotype. In the descriptions below, the idiosomal setation follows Grandjean (1939) as adapted for Prostigmata by Kethley (1990). The nomenclature of leg chaetotaxy follows that proposed by Grandjean (1944). The morphological terminology follows Skoracki (2011). The scientific names of the birds follow Clements *et al.* (2012).

Specimen depositories and reference numbers are displayed using the following abbreviations: AMU – Adam