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Article



New picobiin mites (Acari: Syringophilidae: Picobiinae) associated with woodcreeper birds (Passeriformes: Dendrocolaptidae)

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Abstract

Two new species belonging to the genus *Rafapicobia* Skoracki, 2011 (Syringophilidae: Picobiinae) collected from birds of the family Dendrocolaptidae are described: 1) *Rafapicobia dendrocolaptesi* **sp. nov.** from *Dendrocolaptes platyrostris* Spix (type host) in Paraguay and from *D. picumnus* Lichtenstein in Argentina; 2) *Rafapicobia lepidocolaptesi* **sp. nov.** from *Lepidocolaptes affinis* (Lafresnaye) (type host) in Ecuador and Venezuela and from *L. souleyetii* (Des Murs) in Colombia. Syringophilid mites are recorded from woodcreepers for the first time.

Key words: Acari, Syringophilidae, Picobiinae, quill mites, ectoparasites, birds, Dendrocolaptidae

Introduction

The subfamily Picobiinae Johnson and Kethley (Acariformes: Cheyletoidea: Syringophilidae) is potentially taxonomically diverse group of the syringophilid mites parasitising birds. All members of this subfamily occupy exclusively quills of body feathers of their avian hosts, except the enigmatic species *Calamincola lobatus* Casto known from various types of flight feathers and *Columbiphilus khulkhaskhani* Kivganov and Sharafat found in the nest of the domestic pigeon *Columba livia* Gmelin (Casto 1977; Kivganov & Sharafat 1995). Recently this subfamily was revised by Skoracki (2011) and this taxon now comprises 35 species grouped in five genera which are known from birds from seven orders: Columbiformes, Galliformes, Pteroclidiformes, Passeriformes, Piciformes, Psittaciformes, and Upupiformes (Casto 1977; Kivganov & Sharafat 1995; Fain et al. 2000; Bochkov et al. 2004; Skoracki et al. 2004; Skoracki 2011).

Host family Dendrocolaptidae includes around 57 species grouped in 20 genera and represents an endemic group of Neotropical sub-oscine passeriform birds (Clements 2007), and until now we have no data about parasitism by quill mites on this group of hosts.

In the present study we give the descriptions of two new species of the picobiin mites associated with woodcreeper birds: 1) *Rafapicobia dendrocolaptesi* **sp. nov.** from *Dendrocolaptes platyrostris* Spix (type host) in Paraguay and from *D. picumnus* Lichtenstein in Argentina; 2) *Rafapicobia lepidocolaptesi* **sp. nov.** from *Lepidocolaptes affinis* (Lafresnaye) (type host) in Ecuador and Venezuela and from *L. souleyetti* (Des Murs) in Colombia.

Material and methods

The mite materials used in the present study were collected in the ornithological collection of the Bavarian State Collection of Zoology, Munich, Germany (ZSM) from dry bird skins. Before mounting, mites were softened and cleared in Nessbitt's solution at $+60^{\circ}$ C for 1–2 hours. For light microscope study mites were mounted on slides in