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Two new quill mite species (Prostigmata: Syringophilidae) parasitizing Australian birds

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Abstract

Two new quill mite species (Prostigmata: Cheyletoidea: Syringophildae), Syringophilopsis philemonis **sp. nov.** from Philemon citreogularis (Gould) (Passeriformes: Meliphagidae) and Megasyringophilus cacatua **sp. nov.** from Cacatua galerita (Latham) (Psittaciformes: Psittacidae) are described from Australia.

Key words: quill mites, Australian birds, Syringophilopsis, Megasyringophilus, systematics

Introduction

Quill mites of the family Syringophilidae (Acari, Prostigmata, Cheyletoidea) are obligatory ectoparasites of birds, inhabiting various types of feathers. Up to now, syringophilids have been represented by 288 species grouped in 54 genera. The hitherto host fauna has included 375 bird species belonging to 79 families and 21 orders (personal calculation). The genus *Syringophilopsis* Kethley is one of the most numerous genera among syringophilids. It includes 42 species associated with passerines of 25 families and two species parasitizing birds of the family Meropidae (Coraciiformes). This genus has never been recorded from Australia. The genus *Megasyringophilus* Fain, Bochkov and Mironov is represented by nine species associated with psittacid (Psittaciformes) (8 species) and accipitrid (Falconiformes) (1 species) birds. Among them two species were recorded from Australian hosts (Skoracki *et al.* 2012; Glowska & Laniecka 2012).

In this paper we describe two new ectoparasitic quill mite species *Syringophilopsis philemonis* from the Little Friarbird *Philemon citreogularis* (Gould) (Passeriformes: Meliphagidae) and *Megasyringophilus cacatua* from the Sulphur-crested Cockatoo *Cacatua galerita* (Latham) (Psittaciformes: Psittacidae) from Australia.

Material and methods

Mites were collected from birds trapped during the expedition to Western Australia in 1976 and the slides were deposited in the Biozentrum Grindel und Zoologisches Museum Hamburg in the University of Hamburg, Germany. Drawings were made with an Olympus BH2 microscope with differential interference contrast (DIC) optics and a camera lucida. All measurements are given in micrometers (μ m). The idiosomal setation follows Grandjean (1939) with modifications adapted for Prostigmata by Kethley (1990). The system of nomenclature for leg chaetotaxy follows that proposed by Grandjean (1944). The application of these chaetotaxic schemes to Syringophilidae was recently provided by Bochkov *et al.* (2008) with changes by Skoracki (2011). The Latin and common names of the birds follow Clements (2007).