



Four new species of the quill mite genus *Picobia* Heller, 1880 (Acari: Syringophilidae) parasitizing birds in the Australian Region

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Abstract

Descriptions of four new species of the genus *Picobia* are given: *P. lemi* **sp. nov.** from *Manucodia chalybatus* (Forster) (type host) and from *Manucodia ater* (Lesson) (Passeriformes: Paradisaeidae) from New Guinea; *P. ephianura* **sp. nov.** from *Ephianura aurifrons* Gould (Passeriformes: Meliphagidae); *P. corcoracus* **sp. nov.** from *Corcorax melanorhamphos* (Vieillot) (Passeriformes: Grallinidae) and *P. glossopsitta* **sp. nov.** from *Glossopsitta porphyrocephala* (Dietrichsen) (Psittaciformes: Psittacidae) from Australia. A list of all known species of the family Syringophilidae (Acari: Prostigmata) parasitizing birds of Australian Region is provided.

Key words: Syringophilidae, quill mites, ectoparasites, new taxa, Australia, New Guinea, *Picobia*

Introduction

Mites of the family Syringophilidae are obligatory and permanent parasites of birds. They live and reproduce within the quills of feathers. This family comprises two unequal groups, representing subfamilies, the Syringophilinae Lavoipierre and Picobiinae Johnston et Kethley. Mites of the subfamily Syringophilinae inhabit the flight feathers (primaries, secondaries, tertials, greater coverts, greater primary coverts) and tail feathers, while species belonging to the subfamily Picobiinae occur in the body feathers only.

Although Australian Region has a rich and unique bird fauna and includes more than 1500 species (Clements 2007), the fauna of syringophilids parasitizing birds of this biogeographic zone is still inadequately documented. To this time, only eight quill mite species were reported from hosts of this area (Table 1).

In the present paper we describe four new species belonging to the genus *Picobia*: *P. lemi* **sp. nov.** from *Manucodia chalybatus* (Forster) and from *Manucodia ater* (Lesson) (Passeriformes: Paradisaeidae) from New Guinea; *P. ephianura* **sp. nov.** from *Ephianura aurifrons* Gould (Passeriformes: Meliphagidae); *P. corcoracus* **sp. nov.** from *Corcorax melanorhamphos* (Vieillot) (Passeriformes: Grallinidae) and *P. glossopsitta* **sp. nov.** from *Glossopsitta porphyrocephala* (Dietrichsen) (Psittaciformes: Psittacidae) from Australia.

Materials and methods

The syringophilids were acquired from the bird specimens (dry skins) housed in the Museum of Natural History, Wrocław, Poland (MNHW). Initially, mites were placed in lactic acid (10%) for three days. Later, they were mounted on slides in Faure medium and examined using an Olympus BH2 microscope with differential interference contrast (Nomarski) optic.