



Three new quill mite species of the genus *Neoaulonastus* Skoracki (Acari: Syringophilidae) parasitizing passerines in Tanzania

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Abstract

Three new species of the genus *Neoaulonastus* Skoracki, 2004 found inside the quills of the body feathers are described: *N. tanzanicus* **sp. nov.** from *Euplectes axillaris* (Smith) (Passeriformes: Ploceidae), *N. quelea* **sp. nov.** from *Quelea quelea* Linnaeus (Ploceidae) and *N. granatina* **sp. nov.** from *Granatina ianthinogaster* Reichenow (Estrildidae). All avian hosts were captured in Tanzania. Key to *Neoaulonastus* species is proposed.

Key words: Acari, Syringophilidae, quill mites, ectoparasites, birds, Africa, Tanzania

Introduction

The quill mites of the family Syringophilidae (Acari: Prostigmata: Cheyletoidea) are mono- or oligoxenous parasites associated with birds of 21 orders (Kethley 1970; Skoracki 2011; Skoracki et al. 2012). The family includes 281 species of 54 genera described from all zoogeographical regions, except Antarctica (Skoracki 2011; Skoracki et al. 2012). This number of syringophilid species is only a small part of their potential biodiversity, because the wide spectrum of the avian hosts is still unexplored.

The systematic revision of the genus *Neoaulonastus* Skoracki was recently provided by Skoracki (2011). Presently, this potentially speciose genus includes 11 described species (including new ones) recorded from the Palaearctic, Afrotropical and Oriental regions. They are mainly associated with passerines from the families Acrocephalidae, Aegithalidae, Estrildidae, Hirundinidae, Ploceidae, Remizidae, Sylviidae, and Zosteropidae, although two species were described from piciform avian hosts of the family Picidae. Members of *Neoaulonastus* occupy a wide spectrum of microhabitats (types of feathers) on their hosts: secondaries, tertials, rectrices, coverts, and body feathers (see Table 1).

In this paper we described three new species of the genus *Neoaulonastus* associated with passerines in Tanzania: *Neoaulonastus tanzanicus* **sp. nov.** from *Euplectes axillaris* (Smith) (Passeriformes: Ploceidae), *N. quelea* **sp. nov.** from *Quelea quelea* Linnaeus (Ploceidae) and *N. granatina* **sp. nov.** from *Granatina ianthinogaster* Reichenow (Estrildidae).

Material and methods

The material used in the present study was collected from dry bird skins housed in the Bavarian State Collection of Zoology, Munich, Germany (ZSM) (Fig. 1). About 10 body feathers were completely removed from each specimen and examined under a stereomicroscope using 10–20× magnification. When quill mites were present, the feather