



## Two new quill mite species (Acari, Cheyletoidea, Syringophilidae) parasitizing *Dinemellia dinemelli* (Rüppell) (Passeriformes, Ploceidae)

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### Abstract

In this paper we describe two new quill mite species, *Krantziaulonastus yoyomi* sp. nov. and *Picobia dinemellia* sp. nov. (Acari, Cheyletoidea, Syringophilidae), parasitizing the White-headed Buffalo Weaver *Dinemellia dinemelli* (Rüppell) (Passeriformes, Ploceidae). This host species represents a new avian family (Ploceidae) for the genera *Picobia* Haller and *Krantziaulonastus* Skoracki.

**Key words:** Acari, quill mites, Syringophilidae, *Krantziaulonastus*, *Picobia*, ectoparasites

### Introduction

Syringophilids (Acari, Syringophilidae) are a group of obligatory ectoparasites of birds, which live and feed inside the quills of various types of feathers. Since 2000, the quill mites have become the subject of extensive taxonomic research. Each year, the number of known mite and host taxa has grown significantly (tens per year) (Skoracki 2011). At present, the family Syringophilidae is divided into two subfamilies: Syringophilinae Lavoipierre represented by 215 species grouped in 47 genera (including *Krantziaulonastus* Skoracki) and Picobiinae Johnston & Kethley with 5 genera (including *Picobia* Haller) and 35 species (Skoracki 2011). Up to now, the fauna of the genus *Krantziaulonastus* has been represented by four monoxenous species parasitizing passeriform (2 families) and piciform (1 family) birds from Asia, Europe and South America. The biodiversity, host spectrum, specificity and distribution of the genus *Picobia* are much wider. Until now, 22, both mono- and oligoxenous species belonging to this genus have been recorded from three bird orders: Passeriformes (12 families), Piciformes and Coraciiformes (with 1 family each) from the Palaearctic, Oriental, Australian and Ethiopian regions (Skoracki 2011).

In this paper we describe two new quill mite species, *Krantziaulonastus yoyomi* sp. nov. and *Picobia dinemellia* sp. nov. parasitizing the White-headed Buffalo Weaver *Dinemellia dinemelli* (Rüppell) (Passeriformes, Ploceidae). This host species represents a new avian family (Ploceidae) for the genera *Picobia* and *Krantziaulonastus*.

### Material and methods

The quill mite material used in the study was obtained from frozen bird housed in the Biozentrum Grindel und Zoologisches Museum Hamburg in the University of Hamburg (Germany), coll. E. Glowska, November 2010. The host individual was originally collected from the wild in Tanzania and imported to Hamburg in 1991, which then lived and died in the private aviary. The type material is deposited in the collection of the A. Mickiewicz University, Department of Animal Morphology, Poznan, Poland (AMU). Drawings were made with an Olympus BH2 microscope with DIC optics and camera lucida. All measurements in descriptions and in scale bars in the figures are given in micrometers (µm). The idiosomal setation follows Grandjean (1939) as 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 names and classification of the host follows Clements (2007).