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## Two new quill mite species of the family Syringophilidae (Acari: Prostigmata) parasitising the house sparrow *Passer domesticus* (L.) (Aves: Passeriformes)

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### Abstract

Two new quill mite species of the family Syringophilidae, *Picobia passeri* sp. nov. and *Krantziaulonastus dubinini* sp. nov., are described from quills of the body feathers of the house sparrow *Passer domesticus* (L.) (Passeriformes: Passeridae) from the European part of Russia.

**Key words:** Acari, Syringophilidae, quill mites, ectoparasites of birds, *Passer domesticus*

### Introduction

The quill mites of the family Syringophilidae (Acari: Prostigmata: Cheyletoidea) are taxonomically diverse group of obligatory and permanent ectoparasites of bird. They live inside the quill cavities of the flight and body feathers and feed on soft tissue fluids of their hosts by piercing the calamus wall with their long and flexible chelicerae (Kethley 1970, 1971). This family currently includes about 280 species grouped in 56 genera and two subfamilies (Skoracki 2011; Skoracki *et al.* 2012; Skoracki & Hromada 2013). Presently, syringophilids are known from hosts of 23 orders belonging both to neognathous and palaeognathous birds (Skoracki *et al.* 2012, 2013a, b). These mites show a high degree of host specificity; monoxenous or narrowly oligoxenous species (i.e. mites parasitising different host species belonging to the same genus or family) constitute about 86% of the world fauna of syringophilids (Skoracki *et al.* 2012).

To present time, two quill mite species have been described from the house sparrow, *Syringophiloidus minor* (Berlese) inhabiting quills of secondaries, coverts, rectrices, and tertials, and *Syringophilopsis passericus* Skoracki living in quills of secondaries and primaries (Skoracki 2011). In the present paper, two new syringophilid species belonging to the genera *Picobia* Haller and *Krantziaulonastus* Skoracki are described from quills of the body feathers of the house sparrows from Russia.

### Material and methods

The material used in the present study was collected by V.V. Abramov (Suvorov, Russia) and placed in tubes with 75% ethanol. Then, in laboratory conditions (AMU), the infected quills were dissected; individual mites were removed and mounted on slides in Hoyer's medium. The mite material was examined under an Olympus BH-2 light microscope with differential interference contrast (DIC) optics. Drawings were made with the aid of a drawing attachment. All measurements are given in micrometers. Measurements (ranges) for paratypes are given in brackets following the data on holotype. In the descriptions below, the idiosomal setation follows Grandjean (1939) as adapted for Prostigmata by Kethley (1990); the leg setation follows Grandjean (1944); the morphological terminology follows Skoracki (2011). Specimen depositories and reference numbers are cited using the following abbreviations: AMU—Adam Mickiewicz University, Department of Animal Morphology, Poznan, Poland; ZISP—Zoological Institute, Russian Academy of Sciences, St. Petersburg, Russia.

hysteronotal shield is not fused with the pygidial shield; the infracapitulum and all coxal fields are densely punctate; the length of the stylophore is 125; setae *ag2* and *ag3* are subequal in length. In females of *K. buczekae*, the hysteronotal shield is fused with the pygidial shield; the infracapitulum and all coxal fields are sparsely punctate; the length of stylophore is 145–150; setae *ag3* are twice as long as *ag2*.

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