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urn:lsid:zoobank.org:pub:BBBCDE51-7444-4352-BF51-D429A45DF2E5

A new genus and species of Apoloniinae (Acari: Trombiculidae) from Oman

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Abstract

A new chigger mite genus and species, *Arabapolonia omanensis* **gen. nov. et sp. nov.** is described from 4 gecko species, *Hemidactylus lemurinus*, *H. homoeolepis* (Gekkonidae), *Ptyodactylus hasselquistii* (Phyllodactylidae), and *Pristurus rupestris* (Sphaerodactylidae) collected in Oman. The new genus is characterized by the simple cheliceral blade, single palpal claw, palpal tarsus 6BS, non-reduced scutum without nasus bearing 2 AM, 2 AL and 2 PL setae, flagelliform sensilla branched in the distal half, 2 pairs of eyes, 7-segmented legs with onychotriches, the absence of some leg setae (subterminala, parasubterminala, pretarsalae I and II, microgenuala II, tibiala III, and coxala II), the absence of the sternal setae between leg coxae I (fSt = 0.2.4), and by the presence of tracheae.

Key words: chiggers, fauna, systematics, Arabian Peninsula

Introduction

Apoloniinae is a small subfamily of chigger mites comprising eight genera and 19 species (Brown 2006, 2009) with the characters intermediate between the Leeuwenhoekinae and Trombiculinae. We follow the system of chiggers where the family Trombiculidae includes Trombiculinae, Leeuwenhoekinae, and Apoloniinae as its subfamilies (Goff *et al.* 1982; Kudryashova 1998; Fernandes & Kulkarni 2003; Shatrov & Kudryashova 2008). In the systems where Leeuwenhoekinae is raised to the family status, Apoloniinae is considered as its subfamily (Vercammen-Grandjean 1968; Vercammen-Grandjean & Kolebinova 1968; Wen 1984; Kolebinova 1992). All Apoloniinae have legs with seven articulated segments, just as Trombiculinae, while in the Leeuwenhoekinae, legs are with six segments (basifemur and telofemur are fused). The traits characteristic of Leeuwenhoekinae, i.e. presence of two anteromedian setae on the scutum, presence of the nasus, microgenuala II, onychotriches on leg claws, and the absence of the anterior sternal setae, are scattered irregularly within Apoloniinae genera.

A small collection of chigger mites from geckos made by Salvador Carranza and Elena Gómez-Díaz in Oman provided us with a new genus and species with a very peculiar set of characters, which is described below. The subfamily has been revised in several works (Vercammen-Grandjean & Kolebinova 1968; Goff 1983; Brown 2006); therefore, there is no need for a new revision.

Material and methods

Four lizard hosts belonging to all three gecko families found in the Arabian Peninsula (*Hemidactylus lemurinus* Arnold and *H. homoeolepis* Blanford from Gekkonidae, *Ptyodactylus hasselquistii* (Donndorff) from Phyllodactylidae and *Pristurus rupestris* Blanford from Sphaerodactylidae) were collected in October 2010 and May 2011 in the following five localities of the Sultanate of Oman.