



New quill mites (Cheyletoidea: Syringophilidae) parasitizing the black-headed paradise-flycatcher *Terpsiphone rufiventer* (Passeriformes: Monarchidae) in Gabon

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Abstract

A new genus of quill mites (Cheyletoidea: Syringophilidae) and two new species *Pipicobia terpsiphoni* **gen. nov.** and **sp. nov.** and *Syringophiloidus furthi* **sp. nov.** parasitizing the black-headed paradise-flycatcher *Terpsiphone rufiventer* (Swainson) (Passeriformes: Monarchidae) in Gabon are described. Three species of the *Neopicobia* Skoracki, 2011 are moved to the newly established genus: *Pipicobia locustella* (Skoracki, Bochkov and Wauthy, 2004) **comb. nov.**, *Pipicobia pyrrholaemus* (Skoracki and Glowska, 2008) **comb. nov.**, and *Pipicobia glossopsitta* (Skoracki, Glowska and Sikora, 2008) **comb. nov.** Syringophilids are recorded on hosts of the family Monarchidae and in Gabon for the first time. A key to the genera of the subfamily Picobiinae is proposed.

Key words: Quill mites, Syringophilidae, *Pipicobia*, *Syringophiloidus*, monarchid birds, systematics

Introduction

Quill mites of the family Syringophilidae (Prostigmata: Cheyletoidea) are a group of bird permanent parasites including 59 genera and 314 species known from 438 bird species belonging to 92 families and 23 orders. The family is divided into two subfamilies: Syringophilinae Lavoipierre with 255 species grouped in 50 genera and Picobiinae Johnston and Kethley with 59 species belonging to nine genera. Under that biodiversity of mites known from almost all biogeographical regions, the Ethiopian region seems to be deeply neglected. Only 55 mite species from 70 host species have been recorded so far from this area (Fain *et al.* 2000; Skoracki & Hromada 2013; Skoracki *et al.* 2011, 2012, 2013a,b,c, 2014).

The monarch flycatchers (Passeriformes: Monarchidae) are a family of birds represented by 94 species distributed throughout the south-east Asia, Australasia, many of Pacific islands and sub-Saharan Africa, whilst occurrence of the black-headed paradise-flycatcher *Terpsiphone rufiventer* (Swainson) is restricted to the West and Central Africa. Syringophilids have never been recorded from species belonging to this family.

In this paper we propose a new genus of quill mites (Cheyletoidea: Syringophilidae) *Pipicobia* **gen. nov.** and describe two new species *Pipicobia terpsiphoni* **sp. nov.** and *Syringophiloidus furthi* **sp. nov.** parasitizing the black-headed paradise-flycatcher *Terpsiphone rufiventer* (Swainson) (Passeriformes: Monarchidae) in Gabon. Three species of the *Neopicobia* Skoracki, 2011 are moved to the newly established genus, *Pipicobia locustella* (Skoracki, Bochkov and Wauthy, 2004) **comb. nov.**, *Pipicobia pyrrholaemus* (Skoracki and Glowska, 2008) **comb. nov.** and *Pipicobia glossopsitta* (Skoracki, Glowska and Sikora, 2008) **comb. nov.** We expand a host range of this mite group on a new avian family Monarchidae and give the first records of syringophilids in Gabon. Additionally, we propose a key to the genera of subfamily Picobiinae.

Key to the genera of the subfamily Picobiinae (females)

1. Opistosomal lobes present. *Calamincola* Casto
- Opistosomal lobes absent 2
2. Hypostomal apex tapering, solenidion *phi* on tibia I absent, 1–2 pairs of *ps* setae. 3
- Hypostomal apex of various shaped, solenidion *phi* on tibia I present, two pairs of *ps* setae 6
3. Two pairs of *ps* setae present, thorn-like protuberances on apodemes I absent 4
- Single pair of *ps* setae present, thorn-like protuberances on apodemes I present 5
4. Genital setae absent. *Neopicobia* Skoracki
- One pair of genital setae present *Rafapicobia* Skoracki
5. Genital setae absent. *Charadriineopicobia* Skoracki, Spicer and OConnor
- One pair of genital setae present ***Pipicobia* gen. nov.**
6. One pair of genital setae present 7
- Genital setae absent. 9
7. Setae *vi* and *ve* situated at same transverse level or *vi* posterior to *ve* *Picobia* Haller
- Setae *vi* situated anterior to *ve*. 8
8. Propodonotal shield entire, pygidial shield present *Lawrencipicobia* Skoracki and Hromada
- Propodonotal shield represented by 2 narrow lateral sclerites with or without central part, pygidial shield absent *Columbiphilus* Kivganov et Sharafat
9. Setae *vi* situated anterior to *ve*, hypostomal apex with shoulders, thorn-like protuberances on apodemes I absent *Gunabopicobia* Skoracki and Hromada
- Setae *vi* situated posterior to *ve*, hypostomal apex rounded, thorn-like protuberance on apodemes I present *Pseudopicobia* Skoracki, Scibek and Sikora

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