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Two new species of quill mites of the family Syringophilidae (Acariformes: Cheyletoidea) associated with treronine doves (Columbiformes: Columbidae: Treroninae)

KATARZYNA KASZEWSKA[1,3], KATARZYNA KAVETSKA[2] & MACIEJ SKORACKI[1]

[1]*Departament of Animal Morphology, Faculty of Biology, Adam Mickiewicz University, Umultowska 89, 61-614 Poznań, Poland*
[2]*Laboratory of Biology and Ecology West Pomeranian University of Technology, Doktora Judyma 20, 71-466 Szczecin Poland*
[3]*Corresponding author. E-mail: k.kaszewska@amu.edu.pl*

Abstract

Two new species of quill mites (Acariformes: Syringophilidae) associated with doves of the subfamily Treroninae (Columbiformes: Columbidae) from the Oceanian realm are described: *Gunabopicobia masalaje* **sp. nov.** from six avian host species, *Ptilinopus iozonus* Gray (type host) *Ducula pistrinaria* (Bonaparte), *D. rosacea* (Temminck), *D. rufigaster* (Quoy and Gaimard), *D. spilorrhoa* (Gray), *D. luctuosa* (Temminck), and *Peristerophila lature* **sp. nov.** also from six host species *Ducula luctuosa* (type host), *D. spilorrhoa*, *Ptilinopus jambu* Gmelin, *P. melanospilus* Salvadori, *P. porphyreus* Temminck, *P. regina* Swainson. Additionally, *Treron waalia* (Meyer) is noted as a new host species for *Meitingsunes columbicus* Glowska and Skoracki, 2010.

Key words: Acari, Syringophilidae, ectoparasites, Columbiformes, Treroninae

Introduction

The family Syringophilidae Lavoipierre (Acariformes: Prostigmata: Cheyletoidea) includes permanent and highly specialized mono- or stenoxenous ectoparasites, infesting feather quills (Kethley 1970; Skoracki 2011). This taxonomically specious family with about 320 species grouped in 60 genera is distributed on a broad spectrum of hosts belonging to 23 orders, both from neoganthous and paleognathous birds (Skoracki 2011; Skoracki *et al*. 2012; Glowska & Schmidt 2014).

Until now, the fauna of syringophilid mites associated with columbiform birds included 11 species of six genera: *Castosyringophilus* Bochkov and Perez, 2002, *Columbiphilus* Kivagnov and Sharafat, 1995, *Gunabopicobia* (Lawrence, 1958), *Meitingsunes* Glowska and Skoracki, 2010, *Peristerophila* Kethley, 1970, and *Terratosyringophilus* Bochkov and Perez, 2002. Up to now, the quill mite fauna has been recorded only from birds of the subfamily Columbinae belonging to nine genera and 19 species (Lawrence 1958; Kivganov and Sharafat 1995; Bochkov and Perez 2002; Glowska and Skoracki 2010; Skoracki *et al*. 2012; Skoracki and Hromada 2013).

In this paper we give descriptions of two new species, *Gunabopicobia masalaje* **sp. nov.** and *Peristerophila lature* **sp. nov.**, associated with several dove-species from the genera *Ptilinopus* and *Ducula* (Columbidae, Treroninae). Additionally, *Treron waalia* (Meyer) is noted as a new host species for *Meitingsunes columbicus* Glowska and Skoracki, 2010.

Material and methods

The material used in the present study was collected from dry bird skins housed in the ornithological collection of the Bavarian State Collection of Zoology (ZSM), Munich, Germany. Mites were extracted with sharp, fine tweezers through a longitudinal cut made in the quill. Before mounting, mites were softened and cleared in Nessbitt's

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November 1912, coll. Nack (deposited in the AMU (Reg. No. AMU-SYR.509), except 1 female in the ZSM (Reg. No. ZSM20112055) and 1 female in the ZISP (Reg. No. ZISP-AVB011-2908-028)).

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References

Bochkov, A.V. & Perez, T.M. (2002) New quill mites of the family Syringophilidae (Acari: Cheyletoidea) parasitizing Mexican parrots. *Belgian Journal of Entomology*, 4, 145–159.

Clements, J.F., Schulenberg, T.S., Iliff, M.J., Sullivan, B.L., Wood, C.L. & Roberson, D. (2013) The eBird/Clements checklist of birds of the world: Version 6.8. The Cornell Lab Ornithology, Ithaca, New York. Available from: http://www.birds.cornell.edu/clementschecklist/download/ (accessed 1 August 2013)

Glowska, E. & Skoracki, M. (2010) *Meitingsunes*, a new genus of the ectoparasitic quill mites (Acari: Cheyletoidea: Syringophilidae). *Zootaxa*, 2514, 61–67.

Glowska, E. & Schmidt, B.K. (2014) New quill mites (Cheyletoidea: Syringophilidae) parasitizing the black-headed paradise-flycatcher *Terpsiphone rufiventer* (Passeriformes: Monarchidae) in Gabon. *Zootaxa*, 3786 (1), 57–64. http://dx.doi.org/10.11646/zootaxa.3786.1.3

Grandjean, F. (1939) Les segments postlarvaires de l'hysterosoma chez les oribates (Acariens). *Bulletin de la Société zoologique de France*, 64, 273–284.

Grandjean, F. (1944) Observations sur les acariens de la famille des Stigmaeidae. *Archives des Sciences Physiques et Naturelles*, 26, 103–131.

Kethley, J.B. (1970) A revision of the family Syringophilidae (Prostigmata: Acarina). *Contributions of the American Entomological Institute*, 6, 1–76.

Kethley, J.B. (1990) *Acarina: Prostigmata (Actinedida)*. *In*: Dindal, D.L. (Ed.), *Soil Biology Guide*. Wiley and Sons, New York, pp. 667–754.

Kivganov, D.A. & Sharafat, G.S. (1995) Review of the family Syringophilidae (Acari) with the description of new genera and species. *Zoologichesky Zhurnal*, 74, 82–91. [in Russian]

Lawrence, R.F. (1959) New mite parasites of African birds. *Parasitology*, 49, 416–438.

Skoracki, M. (2011) Quill mites (Acari: Syringophilidae) of the Palaearctic region. *Zootaxa*, 2840, 1–416.

Skoracki, M. & Hromada, M. (2013) A review of picobiine mites (Acari: Syringophilidae: Picobiinae) parasitising African birds. *Folia Parasitologica*, 60, 192–212. http://dx.doi.org/10.14411/fp.2013.022

Skoracki, M., Zabludovskaya, S.V. & Bochkov, A.V. (2012) A review of Prostigmata (Acariformes: Trombidiformes) permanently associated with birds. *Acarina*, 20, 67–107.