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Three new species of the genus *Passeroptes* Fain (Astigmata: Dermationidae) from China

ZI-YING WANG¹, NING MU, XIAO-HUI SU & HUAI LIU

Institute of Entomology, College of Plant Protection, Southwest University, Chongqing 400716, China

¹Corresponding author. E-mail: zhibao@swu.edu.cn

Abstract

Three new species of the genus *Passeroptes* (Acariformes: Dermationidae) are described from passerine birds (Passeriformes) in China: *Passeroptes formosus* sp. nov. from *Garrulax formosus formosus* (Verreaux) (Guizhou), *P. poecilorhynchus* sp. nov. from *Garrulax poecilorhynchus berthemyi* (David and Oustalet) (Guizhou), and *P. picae* sp. nov. from *Pica pica sericea* Gould (Henan). *Passeroptes garrulax* is redescribed from *Garrulax poecilorhynchus berthemyi* in Guizhou.

Key words: feather mites, Dermationidae, *Passeroptes*, new species, China

Introduction

Mites of the family Dermationidae (Astigmata: Analgoidea) live on the skin of birds. This family includes three subfamilies, Apocnemidocoptinae, Dermationinae and Otocoptoidinae (Mironov *et al.* 2005; Bochkov & Mironov 2011). Within the subfamily Dermationinae, the genus *Passeroptes* originally included two subgenera, *Passeroptes* and *Paddacoptes* (Fain 1964). The former subgenus was ranked to the generic status by Gaud & Atyeo (1996). To present, the genus *Passeroptes* includes 21 species (Fain & Bochkov 2003; Mironov *et al.* 2005; Bochkov & Mironov 2012).

To date, a single species from the genus *Passeroptes* has been reported in China, *P. dermicola* (Trouessart) from *Passer montanus* (Linnaeus) (Passeriformes: Passeridae) (Wang & Wang 2012). In this paper, we describe three new species of *Passeroptes* from passerines in China. We also include figures of *P. garrulax* Fain, 1965 because this species was only described but not figured (Fain 1965).

Material and methods

Mites were cleared in lactic acid, slide-mounted in polyvinyl lactophenol medium, and dried for 4 days at 50 °C. Drawings were made using a camera lucida attached to an Olympus BX51 (Japan) microscope with differential interference contrast optics. In species descriptions, all measurements are given in micrometres (µm). Idiosomal length was measured from the anterior margin of the propodonotum to the posterior end of the opisthosomal lobes. Widths of the idiosoma and hysteronotal shields were measured at the level of setae *cp*. The length of the propodonotal shield was measured along the median line of the shield. The width of the propodonotal shield was measured at its widest part, at the level of setae *se*. The length of the hysteronotal shield was measured along its lateral border. Lengths of the posterior legs were measured from the most basal point of the trochanter to the apex of the tarsus, excluding the pretarsus.

The terminology relating to the idiosomal setation follows Griffiths *et al.* (1990) with modifications of Norton (1998) concerning coxal setae. The leg setation follows Grandjean (1939). Holotypes (male) and paratypes of all species described here are deposited in the Institute of Entomology, Southwest University, Chongqing, China. Host systematics follows Zheng (2002, 2011).

References

- Arutunjan, E.S. & Mironov, S.V. (1983) New and little known species of analgoid-mites from the USSR. *Academy of Sciences of Armenian SSR. Institute of Zoology, Zoological Papers*, 19, 319–336.
- Bochkov, A.V. & Mironov, S.V. (2011) Phylogeny and systematics of mammal-associated psoroptidian mites (Acariformes: Astigmata: Psoroptidia) derived from external morphology. *Invertebrate Systematics*, 25, 22–59.
<http://dx.doi.org/10.1071/is10023>
- Bochkov, A.V. & Mironov, S.V. (2012) Mites of the genus *Passeroptes* Fain (Acariformes: Dermationidae) from passerines (Aves: Passeriformes) of North-Western Russia. *Zootaxa*, 3563, 43–57.
- Fain, A. (1964) Notes sur trois nouveaux Acariens parasites. *Revue de Zoologie et de Botanique africaines*, 70, 297–300.
- Fain, A. (1965) A review of the family Epidermoptidae Trouessart parasitic on the skin of birds (Acarina: Sarcoptiformes). *Verhandelingen van de Koninklijke vlaamse academie voor wetenschappen, letteren en schone kunsten van België; Klasse der wetenschappen*, 27, 1–176 (Pt. I, text), 1–144 (Pt. II, illustrations).
- Fain, A. & Bochkov, A.V. (2003) New species of mites parasitic on the skin of birds (Acari Epidermoptidae and Dermationidae). *Bulletin de la Société royale Belge d'Entomologie*, 139, 121–149.
- Gaud, J. & Atyeo, W.T. (1996) Feather mites of the world (Acarina, Astigmata): the supraspecific taxa. *Musée Royal de l'Afrique Centrale, Annales, Sciences Zoologiques*, 277, 1–193 (Pt. I, text), 1–436 (Pt. II, illustrations).
- Griffiths, D.A., Atyeo, W.T., Norton, R.A. & Lynch, C.A. (1990) The idiosomal chaetotaxy of astigmatid mites. *Journal of Zoology (London)*, 220, 1–32.
- Grandjean, F. (1939) La chaetotaxie des pattes chez les Acarididae. *Bulletin de la Société Zoologique de France*, 64, 50–60.
- Mironov, S.V., Bochkov, A.V. & Fain, A. (2005) Phylogeny and evolution of parasitism in feather mites of the families Epidermoptidae and Dermationidae (Acari: Analgoidea). *Zoologischer Anzeiger*, 243, 155–179.
<http://dx.doi.org/10.1016/j.jcz.2004.10.001>
- Norton, R.A. (1998) Morphological evidence for the evolutionary origin of Astigmata (Acari: Acariformes). *Experimental and Applied Acarology*, 22, 559–594.
- Wang, Z.Y. & Wang, J.J. (2012) The review of feather mites classification study and one new record family and three new records species in China. *Acta Zootaxonomica Sinica*, 37, 875–884. [in Chinese]
- Zheng, G.M. (2002) *A Checklist on the Classification and Distribution of the Birds of the World*. Science Press, Beijing, 400 pp. [in Chinese]
- Zheng, G.M. (2011) *A Checklist on the Classification and Distribution of the Birds of China (Second Edition)*. Science Press, Beijing, 456 pp. [in Chinese]