



<http://dx.doi.org/10.11646/zootaxa.3985.1.3>

<http://zoobank.org/urn:lsid:zoobank.org/pub:FDA4478F-836A-4C67-A37E-824935816F1B>

Feather mites of the genus *Passeroptes* Fain (Acariformes: Dermationidae) from passerines (Aves: Passeriformes) of China

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Abstract

Five new species of the feather mite genus *Passeroptes* (Acariformes: Dermationidae) are recorded from birds of the order Passeriformes in China: *P. lioparis* **sp. nov.** from *Chrysotus chrysotis* (Blyth) (Paradoxornithidae); *P. motacillae* **sp. nov.** from *Motacilla cinerea* Tunstall (Motacillidae); *P. cyanodermae* **sp. nov.** from *Cyanoderma ruficeps* Blyth (Timaliidae); *P. periparus* **sp. nov.** from *Periparus ater* (Linnaeus) (Paridae); *P. aegithalos* **sp. nov.** from *Aegithalos iouschistos bonvaloti* (Oustalet) (Aegithalidae).

Key words: new species, avian parasites, Astigmata, taxonomy

Introduction

Mites of the family Dermationidae Fain, 1965 (Acariformes: Analgoidea) are permanent parasites living on the skin of birds (Bochkov & Mironov 2012). Initially, this family was established as a subfamily of the Epidermoptidae (Fain 1965). Later Gaud and Atyeo (1996) elevated its status to the family level. To present, the family Dermationidae consists of three subfamilies: Apocnemidocoptinae, Dermationinae, and Otocoptoidinae, and includes more than 50 species in 13 genera (Mironov *et al.* 2005; Hernandez *et al.* 2015).

The genus *Passeroptes* Fain, 1964, with 24 species, is the largest genus in the family Dermationidae (Fain 1965; Fain & Bochkov 2003; Bochkov & Mironov 2012; Wang *et al.* 2014). To date, five species of *Passeroptes* have been reported in China (Wang & Wang 2012; Wang *et al.* 2014). In the present paper, we add descriptions of five new species from Chinese passerines. Hosts and distributions of all species of the genus *Passeroptes* are provided in Table 1.

Material and methods

Birds were captured with mist-nets in Sichuan and Yunnan by a study group from the Ornithology Research Center (University of Chinese Academy of Sciences). Birds were restrained while feather mites were collected with a needle under a stereoscopic microscope and preserved in 96% ethanol. Mites were slide-mounted with Hoyer's solution and cured on a Flattening table (Leica HI1220, Germany) at 50°C for 4–5 days. Mounted mites were observed with an Olympus BX51 (Japan) equipped with differential interference contrast. The idiosomal setation follows Griffiths *et al.* (1990) with modifications of Norton (1998) concerning coxal setae. The leg setation follows Grandjean (1939). In species descriptions, all measurements are given in micrometres (µm). Idiosomal length was measured from the anterior margin of propodonotum to posterior end of the opisthosomal lobes. Widths of the idiosoma and hysteronotal shield were measured at the level of setae *cp*. The length of the propodonotal shield was measured along the median line of the shield, its width at the level of setal bases *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.