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Chewing lice (Phthiraptera: Amblycera and Ischnocera) from wild birds in southern Vietnam, with descriptions of two new species

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Abstract

A total of 239 individuals of 50 bird species were examined for chewing lice (Insecta: Phthiraptera) in southern Vietnam. Fifty-six birds of 20 species were parasitised by 15 species of lice belonging to 10 genera from two suborders, Amblycera: *Menacanthus*, *Meromenopon*, *Myrsidea*, and Ischnocera: *Alcedoecus*, *Brueelia*, *Cuculicola*, *Meropoecus*, *Penenirmus*, *Phlopterooides* and *Phlopterus*. Thirteen louse samples from Passeriformes were identified to genus only because they contain inadequate material. A total of 29 host-louse associations were found, of which nine are new, including: (1) two new species of the genus *Brueelia*, which are described and named in this paper: *Brueelia binhchauensis* from *Megalaima lineata* (Vieillot, 1816) (Piciformes: Megalaimidae), and *Brueelia malacocinclae* from *Malacocinclae abbotti* Blyth, 1845 (Passeriformes: Pellorneidae); (2) first records of lice from *Cyornis hainanus* (Ogilvie-Grant, 1900); and (3) the first record of *Myrsidea claytoni* Hellenthal & Price, 2003 from *Cymbirhynchus macrorhynchos* (Gmelin, 1788) (Passeriformes: Eurylaimidae), here regarded as a case of natural host-switching. A portion of the mitochondrial cytochrome oxidase I (COI) gene for some species of chewing lice was sequenced in order to assess their genetic divergences.

Key words: Phthiraptera, lice, *Alcedoecus*, *Brueelia*, *Cuculicola*, *Menacanthus*, *Meromenopon*, *Meropoecus*, *Myrsidea*, *Penenirmus*, *Phlopterooides*, *Phlopterus*, new species, new host-louse associations, host-switching, birds, Coraciiformes, Cuculiformes, Passeriformes, Piciformes, Vietnam, mitochondrial COI gene

Introduction

There are 889 species of birds recorded from Vietnam (Lepage 2013), of which 460 are known as hosts of 758 species of chewing lice (Insecta: Phthiraptera) belonging to 11 genera (Price *et al.* 2003; Sychra *et al.* 2009; Najer *et al.* 2012a,b). However, there are only ten species of chewing lice recorded from Vietnam itself (Mey 2004; Sychra *et al.* 2009; Najer *et al.* 2012a,b), with all the other species known from neighbouring countries. Whereas our previous papers (Sychra *et al.* 2009; Najer *et al.* 2012a,b) presented data on chewing lice found in northern Vietnam, the aim of this paper is to present new data on those from southern Vietnam, including the descriptions of two new species. A portion of the mitochondrial cytochrome oxidase I (COI) gene was also sequenced for some species in order to assess their genetic divergences in comparison to previously described species.

Material and methods

Wild birds were examined in three locations within the sector Nam Cat Tien, a part of Cat Tien National Park, and in one location within Binh Chau—Phuoc Buu National Park, both in southern Vietnam. The first location in Nam Cat Tien was surrounding a rubbish dump next to the tourist dormitory of Cat Tien NP, at 121 m above sea level (11°25' N, 107°25' E); the second location was a scrub forest path next to the ranger station in the southern part of

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