



Redescriptions of two species and descriptions of three new species of the louse genus *Bizarrifrons* Eichler, 1938 (Phthiraptera: Ischnocera: Philopteridae)

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Abstract

Redescriptions of *Bizarrifrons magus* (Nitzsch [in Giebel], 1866), the type species of *Bizarrifrons*, and *B. picturatus* Carriker & Díaz-Ungría, 1961 are given based on material from their type hosts. The nymphal instars of these two species are described and illustrated for the first time. Also, three new species are named and described: *B. latifrons*, from the russet-backed oropendola, *Psarocolius angustifrons alfredi* (Des Murs, 1856); *B. wecksteini*, from the Amazonian oropendola, *Psarocolius b. bifasciatus* (Spix, 1824); and *B. quasisymmetricus*, from the solitary cacique, *Cacicus solitarius* (Vieillot, 1816) (Passeriformes: Icteridae). Two species-groups are proposed, and a checklist and a key for the species of *Bizarrifrons* are also included. Sequences of a portion of the mitochondrial cytochrome oxidase I (COI) and the nuclear elongation factor 1 α (EF-1 α) genes for two species are given for the first time in this genus.

Key words: *Bizarrifrons*, Philopteridae, taxonomy, redescriptions, type species, new species, nymphs

Introduction

Currently, the genus *Bizarrifrons* Eichler, 1938 comprises seven valid species, all parasitic on birds of the family Icteridae (Aves, Passeriformes) (Price *et al.* 2003: 152). In addition to the three species described before Eichler (1938) proposed the genus, two species were added by this author, and Carriker & Díaz-Ungría (1961) added two more. Most of these species are still poorly known morphologically. The original descriptions of *Bizarrifrons magus* (Nitzsch [in Giebel], 1866) and *B. maculatus* (Rudow, 1869) were superficial and without figures, although the former species has been illustrated by subsequent authors (e.g. Giebel 1874; Paine 1917; Eichler 1936, 1938). Still, these species are difficult to recognize due to inaccuracies in published illustrations and descriptions. Also, *B. magus*, being the type species of *Bizarrifrons*, needs to be well defined to establish the morphological parameters for the genus within Philopteridae, and to facilitate the description of new taxa. Furthermore, there are no available descriptions of the preimaginal stages for any species of *Bizarrifrons*.

The availability of new and unidentified louse samples from the type hosts of *Bizarrifrons magus* and *B. picturatus* have allowed us to prepare redescriptions of both species, including full descriptions of their immature stages (except eggs). Furthermore, the same collection includes material representing three undescribed species, which are here described and named as new, and compared with their morphologically more similar relatives.

Material and methods

Most of the specimens studied were already slide-mounted and held in the Entomological Collection of the Field Museum of Natural History, Chicago, USA (FMNH). Some specimens will be deposited in the Museu de Zoologia, Universidade de São Paulo, Brazil (MZUSP).