



Article

urn:lsid:zoobank.org:pub:C9E4B90C-CC13-45E7-A0B8-5F9558D2B564

Genetic and morphological data support placement of *Myrmotherula gularis* (Spix) in the monotypic genus *Rhopias* Cabanis and Heine (Aves: Passeriformes: Thamnophilidae)

RICARDO BELMONTE-LOPES^{1,2,7}; GUSTAVO A. BRAVO³; MARCOS R. BORNSCHEIN^{1,4}; GIOVANNI N. MAURÍCIO^{5,6}; MARCIO R. PIE¹ & ROBB T. BRUMFIELD³

¹Laboratório de Dinâmica Evolutiva e Sistemas Complexos, Departamento de Zoologia, Universidade Federal do Paraná, Centro Politécnico, Jardim das Américas, Caixa Postal 19020, CEP 81531-990, Curitiba, Paraná, Brazil;

²Programa de Pós-Graduação em Zoologia, Departamento de Zoologia, Universidade Federal do Paraná, Centro Politécnico, Jardim das Américas, Caixa Postal 19020, CEP 81531-990, Curitiba, Paraná, Brazil;

³Museum of Natural Science and Department of Biological Sciences, Louisiana State University, Baton Rouge, Louisiana 70803, USA;

⁴Programa de Pós-Graduação em Ecologia e Conservação, Universidade Federal do Paraná, Centro Politécnico, Jardim das Américas, CEP 81531-990, Curitiba, Paraná, Brazil;

⁵Grupo Especial de Estudo e Proteção do Ambiente Aquático do Rio Grande do Sul, Rua Tiradentes, 2247, CEP 96010-165, Pelotas, Rio Grande do Sul, Brazil;

⁶Laboratório de Aves Aquáticas, Instituto de Ciências Biológicas, Campus Carreiros, Universidade Federal do Rio Grande (FURG), Caixa Postal 474, CEP 96201-900, Rio Grande do Sul, Brazil.

⁷E-mail: rbelmonte.lobes@gmail.com

Abstract

Recent DNA-based phylogenetic analyses of the family Thamnophilidae have shown that the genus *Myrmotherula* is polyphyletic. Traditional plumage-based taxonomy has been misleading in terms of identifying independently evolving lineages within the complex. Here, we integrate a molecular phylogeny with morphometric information and ancestral reconstruction of syringeal character states of the Musculi vocales ventrales, to investigate the taxonomic position of *M. gularis*, a species for which phylogenetic affinities have long been uncertain. We show that *M. gularis* represents a long branch in the tribe Thamnophilini that is not closely related to any other member of the *Myrmotherula* complex. Its relationships within the tribe remain uncertain because of the lack of phylogenetic resolution at the base of the tribe. *M. gularis* shares a derived character state of the M. vocalis ventralis with *Taraba*, *Hypoedaleus*, and *Mackenziaena*, which supports a close relationship between *M. gularis* and the large antshrikes. *M. gularis* can be diagnosed from *Myrmotherula* and *Epinecrophylla* by this condition of its M. vocalis ventralis, and from *Isleria* by plumage and other morphological traits. The phylogenetic and morphological distinctiveness of *M. gularis* does not warrant merging it into any other genus. We propose that this species be placed in a monotypic genus, for which the available name *Rhopias* applies.

Key words: Antwren, *Musculus vocalis ventralis*, phylogeny, syrinx, Atlantic Forest

Introduction

The genus *Myrmotherula* Sclater, 1858, as traditionally recognized, was one of the most species-rich avian genera in the New World (Meyer de Schauensee, 1966; Sibley & Monroe, 1990; Zimmer & Isler, 2003). The traditional plumage-based taxonomy of the genus was considered problematic by earlier authors (i.e., Cory & Hellmayr, 1924; Peters, 1951), and several subsequent studies indicated that *Myrmotherula* is polyphyletic (Hackett & Rosenberg, 1990; Gonzaga, 2001; Irestedt *et al.*, 2004; Brumfield *et al.*, 2007; Bravo *et al.*, 2012). Recently, the genus *Epinecrophylla* Isler and Brumfield, 2006 (Isler *et al.*, 2006) was described for eight species referred to as the “stipple-throated” antwrens, and the genus *Isleria* Bravo, Chesser and Brumfield, 2012 was erected for *M. hauxwelli* Sclater and *M. guttata* Vieillot.

Despite the description of these two new genera, taxonomic problems in the *Myrmotherula* complex (sensu Zimmer & Isler, 2003) remain. The phylogenetic position of *M. gularis* (Spix, 1825) is unclear, but earlier analyses