



Taxonomic notes on *Holcobunus* Roewer, 1910, with descriptions of three new species, and new records for *Holcobunus nigripalpis* Roewer, 1910 (Opiliones: Eupnoi: Sclerosomatidae)

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Abstract

Three new Brazilian species of *Holcobunus* Roewer, 1910 are described, thus increasing the total number of species in the genus to five: *Holcobunus bicornutus* Mello-Leitão, 1940, *H. nigripalpis* Roewer, 1910, *Holcobunus dissimilis* sp. nov. (type locality: Espírito Santo, Santa Teresa, Reserva Biologia Augusto Ruschi), *Holcobunus ibitirama* sp. nov. (type locality: Espírito Santo, Ibitirama, Santa Marta, close to Parque Nacional Caparaó), and *Holcobunus uaisoh* sp. nov. (type locality: Minas Gerais, Fervedouro, Parque Estadual Serra do Brigadeiro). A new record for *Holcobunus nigripalpis* Roewer, 1910 from Minas Gerais is also provided and the morphological variation in both penis and somatic morphology in the genus are presented and discussed. These observations enhance our understanding of both the diversity and distribution of *Holcobunus*.

Key words: Brazil, Neotropics, harvestman, Atlantic Forest, Serra da Mantiqueira, taxonomy, systematics

Introduction

Holcobunus was erected by Roewer (1910) mainly based on its presumed pseudoarticular formula (i.e., 1/3/1/1), a class of characters now regarded as taxonomically unreliable. The genus originally comprised seven nominal species from Brazil, Colombia and Bolivia (Roewer, 1910, 1953), with subsequent addition of species from Honduras, Mexico, Colombia, Bolivia and the Amazon (Roewer, 1953), the Brazilian Atlantic Rain Forest (Mello-Leitão, 1932, 1935, 1938, 1940, 1944), and Chile (Piza, 1942). Based on Roewer's problematic criteria for the classification of Gagrellinae, 14 species were recorded from the Brazilian Atlantic Forest, including the type species, *Holcobunus nigripalpis* Roewer, 1910 (Mello-Leitão, 1932a,b, 1935, 1938, 1944, 1940, 1949; Ringuélet, 1954, 1960; Roewer, 1923, 1953, Piza, 1942).

Ringuélet (1954) suggested that the species included in *Garleppa* should be incorporated in *Holcobunus*, given the pseudoarticular formula of 1/3-4/1/1 in the type species, *Garleppa granulata* Roewer, 1912 (From Bolivia) and 1/3/1/1 for *Holcobunus* (Roewer, 1910, 1923, 1953). However, a taxonomic review of *Holcobunus* from the Brazilian Atlantic Forest (Tourinho & Kury, 2001) revealed the femoral pseudoarticular formula in the *Holcobunus* type-species to be 2/5/2/2-3, not 1/3/1/1. This finding highlights the inadequacy of Roewer's system and conflicts with Ringuélet's proposal to transfer *Garleppa* species to *Holcobunus*.

In addition, Tourinho & Kury (2001) synonymized the single species of *Symphathica* Mello-Leitão, 1933 with *Holcobunus nigripalpis* and transferred *Paratamboicus* Mello-Leitão, 1940 to *Holcobunus*. Eight of the southeastern Brazilian species were removed from the genus; seven were transferred to *Jussara* Mello-Leitão, 1935 (Tourinho-Davis & Kury, 2003) and one to *Abaetetuba* (Tourinho-Davis, 2004). Most species of Neotropical Gagrellinae were examined by the first author, who found the true *Holcobunus* species—*Holcobunus bicornutus* (Mello-Leitão, 1940) and *Holcobunus nigripalpis*—to be restricted to the Atlantic Forest.