



Cladistic analysis of the Stygninae and description of a new species of *Protimesius* Roewer, 1913 (Opiliones: Stygnidae)

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Abstract

A new species of Stygnidae is described from the state of Bahia, Brazil. *Protimesius bahiensis* sp. nov. can be distinguished from the remaining species of the genus by the combination of: male femur IV unarmed and cylindrical; male patella IV with a row of large dorsal acute tubercles, increasing in size distally and male tibia IV with one meso-distal tubercle; ventral plate of the penis with three pairs of distal curved setae and one pair of intermediate setae, smaller than the rest. A cladistic analysis of the subfamily is presented. Stygninae is divided in two groups of genera: (*Ricstygnus*, *Stygnus*, *Sickesia*), with a wide distribution and (*Pickeliana* (*Protimesius* (*Phareus* (*Stenophareus* (*Auranus* (*Verrucastygnus*, *Stenostygnoides*))))), associated to the Guiana Shield, Amazon basin and Northeastern Brazil. The monophyly of *Protimesius* is supported by the apex of pedipalpal tibia sockets bifid (homoplastically present in *Verrucastygnus* and *Stenostygnoides*) and by the presence of scopulae with non-spatulated hairs.

Key words: Cladistic analysis, Gonyleptoidea, Neotropics, Stygninae

Resumen

Una nueva especie de Stygnidae es descrita, proveniente del estado de Bahia, Brasil. *Protimesius bahiensis* sp. nov. puede ser distinguido de sus congéneres por la siguiente combinación de caracteres: Fémur IV de los machos desarmado y cilíndrico; patela IV de los machos con una fila de tubérculos agudos dorsales, incrementando de tamaño distalmente y tibia IV de los machos con un tubérculo mesodistal; placa ventral del pene con tres pares de cerdas distales curvas, un par de cerdas intermedias más pequeñas que las restantes. Un análisis cladístico del género es presentado. La subfamilia Stygninae es basalmente dividida en dos grupos de géneros (*Ricstygnus*, *Stygnus*, *Sickesia*), con una amplia distribución y (*Pickeliana* (*Protimesius* (*Phareus* (*Stenophareus* (*Auranus* (*Verrucastygnus*, *Stenostygnoides*))))), asociados al Escudo de las Guyanas, Nordeste de Brasil, y cuenca del Amazonas. La monofilia de *Protimesius* es soportada por el ápice de la base de los tubérculos espiniformes de la tibia pedipalpar bífido (homoplásicamente presente en *Verrucastygnus* y *Stenostygnoides*), y presencia de escópula sin pelos espatulados.

Introduction

The genus *Protimesius* Roewer, 1913 is a South American group of harvestmen distributed in Ecuador, Peru and Brazil, where it is most diverse. The genus is distributed in humid rain forests of the Atlantic (Brazilian states of Espírito Santo to Paraíba) and Amazonian Rain Forests (Peru to northern Brazil) (Kury and Pinto-da-Rocha 2008; Pinto-da-Rocha 1997, 2000; Villarreal-Manzanilla and Pinto-da-Rocha 2006), and two species in relictual humid forests surrounded by dry forest (Kury 2009; Pinto-da-Rocha and Carvalho 2009).

The species of *Protimesius* were considered by Pinto-da-Rocha (1997) as closely related to *Pickeliana* Mello-Leitão, 1932. Both genera can be distinguished by body size, apex of anterior socket of the pedipalpal