



<http://dx.doi.org/10.11646/zootaxa.3964.5.4>

<http://zoobank.org/urn:lsid:zoobank.org:pub:07FD1A2E-2841-431E-9359-E4295C5F6B0E>

## ***Stemmiulus brasiliensis* n. sp., a new species of millipede from Brazilian iron ore caves (Diplopoda: Stemmiulida: Stemmiulidae)**

LUIZ FELIPE MORETTI INIESTA & RODRIGO LOPES FERREIRA<sup>1</sup>

*Centro de Estudos em Biologia Subterrânea, Setor de Zoologia Geral, Departamento de Biologia, Universidade Federal de Lavras, Minas Gerais, Brazil*

<sup>1</sup>Corresponding author. E-mail: [drops@dbi.ufla.br](mailto:drops@dbi.ufla.br)

### **Abstract**

A new species of *Stemmiulus* Gervais, 1844 is described from Amazonian iron ore caves located in Pará State, Brazil. The new species differs from the other Brazilian species by gonopod morphology, especially the angiocoxite and colpocoxite, and for the first pairs of legs of males. A key for the species of *Stemmiulus* found in Brazil is included.

**Key words:** Stemmiulida, Neotropics, Iron ore caves, Brazil

### **Introduction**

Currently, eight extant nominate genera are recognized in the order Stemmiulida Cook, 1895: *Eostemmiulus* Mauriès, Golovatch et Geoffroy, 2010; *Diopsiulus* Silvestri, 1897; *Prostemmiulus* Silvestri, 1916; *Paurochaeturus* Silvestri, 1916; *Plusiochaeturus* Silvestri, 1916; *Nethoiulus* Brolemann, 1920; *Stemmiulus* Gervais, 1844; and *Scoliognmus* Loomis, 1941 (Shear 2011; Shelley *et al.* 2012). In addition, there is an extinct genus, *Parastemmiulus* Riquelme, Alvarado-Ortega, Ramos-Arias, Hernández, Le Dez., Lee-Whiting et Ruvalcaba-Sil, 2013 (Riquelme *et al.* 2013). However, Mauriès & Golovatch (2006) suggested the synonymization of the genera *Diopsiulus*, *Prostemmiulus*, *Paurochaeturus*, *Plusiochaeturus* and *Nethoiulus* with *Stemmiulus*, which thus becomes a quite diverse genus. Nevertheless, according to Shear (2011), this alteration would require a more robust argumentation in order to be confirmed.

The Stemmiulida is considered typically pantropical (Hoffman *et al.* 1996; Mauriès *et al.* 2010; Shelley *et al.* 2012). Its distribution covers New Guinea, Indonesia, Southeast Asia, Central Africa and Central and South America (Chamberlin 1952; Loomis 1964; Hoffman 1977; Mauriès 1979, 1984, 1989; Mauriès & Golovatch 2006; Mauriès *et al.* 2010; Shelley *et al.* 2012). In the Americas, there are around 75 known species (Mauriès 1984) which range from Peru in the south to Mexico in the north (Silvestri 1916; Shelley *et al.* 2012). Recently, a supposed introduction of Stemmiulida to southern Florida, USA was recorded (Shelley *et al.* 2012). In Brazil, only three species are currently known: *Stemmiulus adisi* (Mauriès, 1984), *S. amazonicus* (Mauriès, 1984) and *S. wellingtoni* (Mauriès 1984), all from Amazonian forests near Manaus (Mauriès 1984).

In this paper, we describe a new species of *Stemmiulus* found in iron ore caves in the Amazonian region, Pará State, Brazil. In addition, we prepared a key to the Brazilian species based on gonopod structure.

### **Material and methods**

**Collection and preservation:** The type specimens were collected during 2010 and 2011 and are deposited in the Zoology Collection, Seção de Invertebrados Subterrâneos (ISLA) at the Universidade Federal de Lavras, Campus Universitário de Lavras, Minas Gerais, Brazil. All specimens were captured with a brush and fixed in vials containing 70% ethanol. The collections were made in fifteen iron ore caves in the municipality of Curionópolis, Pará State, Brazil, in the so-called “Serra Pelada” region (Fig. 1).