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## The first troglobitic *Cryptops* (*Trigonocryptops*) (Chilopoda: Scolopendromorpha) from South America and the description of a non-troglobitic species from Brazil

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### Abstract

*Cryptops* (*Trigonocryptops*) *iporangensis* n. sp., and *C. (T.) hephaestus* n. sp. are described from SE Brazil. *C. (T.) iporangensis* n. sp. presents highly troglomorphic characters and is described from a remarkable cave system located in Sao Paulo State, the Areias cave system, from where other 16 troglobitic species are also known. *C. (T.) hephaestus* n. sp. was described on specimens collected in three caves of the “Quadrilátero Ferrífero” (Iron quadrangle), in Minas Gerais State, but does not present a clear specialization to subterranean habitat. The new troglobitic species can be separated from other species of *Cryptops* (*T.*) from Brazil and all troglobitic species of the genus *Cryptops* by presenting incomplete paramedian sutures on tergites, antennal article 1 with an inverted Y-shaped suture on its proximal part and distal spinose processes on ultimate leg. *C. (T.) hephaestus* differs from the other species of *Cryptops* (*Trigonocryptops*) from Brazil by presenting anterior oblique sutures on tergites 2-7 and posterior oblique sutures on tergites 1-3. *Cryptops* (*Cryptops*) *galathea* Meinert, 1886 is moved here to the subgenus *Trigonocryptops*.

**Key words:** Neotropics, caves, iron ore, limestone, taxonomy, Cryptopidae

### Introduction

The genus *Cryptops* Leach, 1815 is currently divided into four subgenera: *Cryptops* Leach, 1815; *Trigonocryptops* Verhoeff, 1906; *Chromatanops* Verhoeff, 1906 and *Haplocryptops* Verhoeff, 1934 (Bonato *et al.* 2011). Their validity is uncertain (except for *Trigonocryptops*) and the number of valid species of the genus *Cryptops* is probably overestimated (Lewis 2009).

According to the original description of Verhoeff (1906) revised by Attems (1930), the subgenus *Trigonocryptops* is characterized by a transverse ridge on the sternites between the coxae, generally bipartite tarsi, the head overlying tergite 1, a transverse suture on tergite 1, a divided katopleure and mostly yellow or brown colour.

Six species of *Cryptops* have been recorded from Brazil: *C. (Trigonocryptops) galathea* Meinert, 1886; *C. (T.) iheringi* Brölemann, 1902; *C. (Cryptops) heathii* Chamberlin, 1914; *C. (Cryptops) dubiotarsalis* Bücherl, 1946; *C. (Cryptops) schubarti* Bücherl, 1953; *C. (Cryptops) goiasus* Chamberlin, 1958 (Bücherl 1940, 1942; Minelli 2006).

Trajano & Bichuette (2010) mentioned erroneously, that only three troglobitic species of *Cryptops* are known to date in the world (two from Australia and one from Cuba). In fact, there are six known troglobitic species of this genus: *C. (T.) longicornis* Ribaut, 1915, from mainland Spain; *C. (T.) cavernicolus* Matic, Negrea and Fundora Martinez, 1977, and *C. (T.) troglobius* Matic, Negrea and Fundora Martinez, 1977, from Cuba; *C. (Cryptops) vulcanicus* Zapparoli, 1990, from the Canary Is.; *C. (T.) roeplainsensis* Edgecombe, 2005, and *C. (T.) camoowealensis* Edgecombe, 2006, from Australia (Ribaut 1915; Matic *et al.*, 1977; Serra, 1981; Zapparoli 1990; Edgecombe 2005, 2006).

In this study, we describe the seventh troglobitic *Cryptops* species in the world, and the seventh and eighth species of this genus from Brazil.