

## Revision of *Cyriocosmus* Simon, 1903, with notes on the genus *Hapalopus* Ausserer, 1875 (Araneae: Theraphosidae)

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## Abstract

The genus *Cyriocosmus* Simon, 1903 is revised based on most types and additional material from Argentina, Brazil, Colombia, Tobago Island and Venezuela. Two species are newly described from Brazil: *Cyriocosmus nogueira-netoi* and *Cyriocosmus fernandoi*. The species *Cyriocosmus fasciatus* (Mello-Leitão, 1930), formerly synonymized with *Cyriocosmus elegans*, is revalidated. *Metriopelma nigriventris* (Mello-Leitão, 1939) and *Cyriocosmus butantan* Pérez-Miles, 1998 are transferred to *Hapalopus* Ausserer, 1875, proposing *Hapalopus nigriventris* (Mello-Leitão, 1939) new combination and *Hapalopus butantan* (Pérez-Miles, 1998) new combination. The female of *Hapalopus butantan* is described for the first time. All 11 species of *Cyriocosmus* are diagnosed and keyed. A cladistic analysis with 28 characters and 19 taxa was carried out. Searches using three phylogenetic packages found a single, totally resolved tree with the same topology.

**Key words:** Systematics, spider taxonomy, new species, Neotropics

## Introduction

The genus *Cyriocosmus* was described in 1903 by Simon and included *Hapalopus sellatus* Simon, 1889, as type species, and *Hapalopus elegans* Simon, 1889. The genus was established based on the presence of a bifid apophysis on the palpal bulb, unique in Theraphosidae.

In 1939, Mello-Leitão described two species: *C. nigriventris* from Venezuela and *C. semifasciatus* from Trinidad, West Indies. Schiapelli & Gerschman de Pikelin (1973) revised the genus, but did not examine the types of *C. nigriventris* or *C. semifasciatus*. They synonymised *C. semifasciatus* with *C. elegans* and transferred the species *Cyclosternum versicolor* Simon, 1897 to *Cyriocosmus*. The authors also established the synonymies of the genus *Pseudohomoeomma* Mello-Leitão, 1930 with *Cyriocosmus* Simon, 1903, and the type species, *Pseudohomoeomma fasciatum*, described for Brazil, with *C. elegans*. Raven (1985) synonymised the genus *Erythropticila* Fischel, 1927, with its single species *E. plana*, with *Cyriocosmus*, resulting in the new combination *C. planus*. In 1998, Pérez-Miles revised the genus *Cyriocosmus*, describing four more species from Brazil (*C. chicoi*, *C. bertae*, *C. ritae* and *C. butantan*) and one from Bolivia (*C. blenginii*). Pérez-Miles also transferred *C. nigriventris* to *Metriopelma* and synonymised *C. planus* with *C. elegans*. In this work, *Cyriocosmus* was keyed and a cladistic analysis was undertaken for all known species. However, as females of only some species were known, the characters related to spermathecae could not be used in the cladistic analysis. Despite this, spermathecae with caliciform seminal receptacle was interpreted as an additional synapomorphy for *Cyriocosmus*. Vol (1999) described an additional species, *C. leetzi*, from Colombia, which has both male and female described.

The genus *Cyriocosmus* is here revised based on the examination of most types and additional material from Colombia, Venezuela, Tobago Island and Brazil. Two new Brazil-