



## The spider genus *Chrysometa* (Araneae, Tetragnathidae) from the Pico da Neblina and Serra do Tapirapecó mountains (Amazonas, Brazil): new species, new records, diversity and distribution along two altitudinal gradients

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### Abstract

Eight new species of the spider genus *Chrysometa* Simon, 1894 (Araneae, Tetragnathidae) are described and illustrated. *Chrysometa nubigena* n. sp., *C. waikoxi* n. sp., *C. petrasierwaldae* n. sp., *C. santosi* n. sp., *C. yanomami* n. sp., *C. candianii* n. sp., *C. lomanhungae* n. sp., and *C. saci* n. sp. Those species were collected in a study on the diversity of spider communities along altitudinal gradients in Brazilian Amazonia. *C. saci* was captured at the Serra do Tapirapecó (Barcelos), while all the other species are from the Pico da Neblina (São Gabriel da Cachoeira), the highest mountain in Brazil. We provide new records for *C. boraceia*, *C. flava*, *C. guttata*, *C. minuta* and *C. opulenta*, and we describe the male of *C. minuta* for the first time. We also present the first results on the diversity and altitudinal distribution of the species of *Chrysometa* at the Pico da Neblina and Serra do Tapirapecó. We sampled the first locality at six different elevations, and obtained 336 specimens distributed in 12 species. Richness and abundance, as well as relative importance peaked at the highest sites sampled (2,000 and 2,400 m). The three most abundant species showed a segregated distribution, being dominant or exclusively distributed in different altitudes. At the Serra do Tapirapecó, sampling at four different elevations up to 1200 m, we only obtained 40 individuals divided in four species, and there was no clear relation to altitude. Most of the new species were found at mid and high altitude sites, while species from lower altitude sites represented widespread species. The comparison with other neotropical spiders inventories highlights the high diversity recorded at Pico da Neblina, which could be assigned to the large environmental variation covered in this work and to the sampling of high-altitude environments. Inventories in the Andean region and other information in the literature also seem to support the association of *Chrysometa* with high altitude environments.

**Key words:** spiders, taxonomy, biodiversity, Araneoidea, orbweavers, Neotropical region

### Introduction

Spiders from the genus *Chrysometa* Simon, 1895 are neotropical orb-weavers of the family Tetragnathidae. The genus was proposed by Simon in 1894 for a specimen described by Keyserling (1863) as *Tetragnatha tenuipes*. Levi (1986) examined the specimen and concluded that it was not *C. tenuipes*, but a new species, designated as *Chrysometa eugeni*. Levi (1986) also considered *Capichameta* Soares and Camargo, 1955, and *Pseudometa* F.O.P.-Cambridge, 1903 to be junior synonyms of *Chrysometa*.

Adults of most *Chrysometa* species are small (from 3 to 5 mm) and have an oval abdomen, with silver or white spots and dark pigmentation. Males have longer legs, but slightly smaller bodies than females (Levi 1986). In his revision on the genus, Levi (1986) indicates as the most characteristic features of *Chrysometa* males the presence