

First record of *Cyrtophora citricola* (Forskål) in Brazil (Araneae, Araneidae)

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ABSTRACT. *Cyrtophora* Simon, 1864 comprises 36 species that occur in the Old World and Australia. *Cyrtophora citricola* (Forskål, 1775) is widespread and has been introduced in the Neotropical region, in Colombia and Hispaniola. Here is presented the first record of this species in Brazil, in the municipalities of Belo Horizonte and Prudente de Morais, State of Minas Gerais. The specimens studied show variations in coloration and in the abdomen's format, but the genital structure is the same as observed in specimens of *C. citricola*.

KEY WORDS. Distribution, introduced species, Neotropical, spiders.

RESUMO. *Cyrtophora* Simon, 1864 compreende 36 espécies que ocorrem no Velho Mundo e Austrália. *Cyrtophora citricola* (Forskål, 1775) é uma espécie de ampla distribuição e que foi introduzida na região Neotropical, na Colômbia e em Hispaniola. Aqui é apresentada a primeira ocorrência desta espécie no Brasil, nas cidades de Belo Horizonte e Prudente de Morais, Minas Gerais. Os espécimes estudados apresentam variações na coloração e no formato do abdome, mas a estrutura genital é a mesma observada em espécimes de *C. citricola*.

PALAVRAS CHAVE: Aranhas, distribuição, espécie introduzida, neotropical.

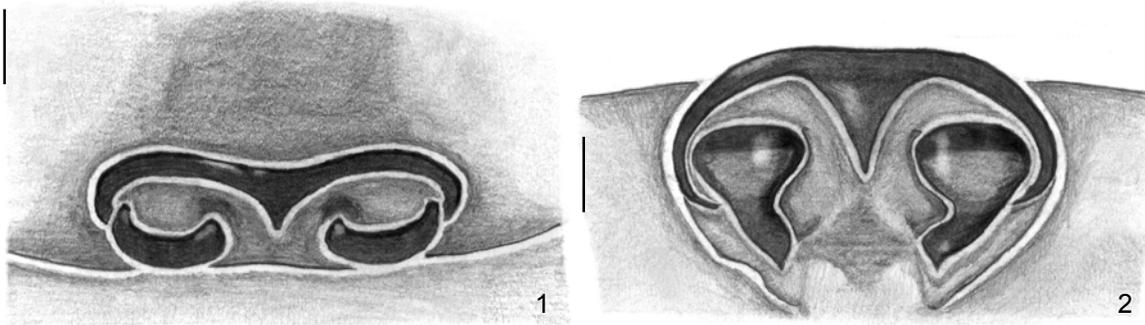
Cyrtophora Simon, 1864 includes 36 species and eight subspecies which are found mainly in the Oriental, African and Australian regions (PLATNICK 2003). Until recently, there were about 15 known species of this genus occurring in the Americas. However, in the revisions of LEVI (1995, 1997), these species were transferred to the genera *Kapogea* Levi, 1997, *Manogea* Levi, 1997, *Eustala* Simon, 1895 and *Spilasma* Simon, 1897, all under the family Araneidae, and *Azilia* Keyserling, 1881 and *Dolichognatha* O.P.-Cambridge, 1869, under Tetragnathidae. The spiders of the genus *Cyrtophora* are characterized by having the length of the patella plus that of the tibia of the legs II to IV slightly shorter than the lengths of the femur of the same leg and also shorter than the combined lengths of the metatarsus and tarsus of same leg; the posterior eye row recurved; the openings of the epigynum sclerotized and the embolus of the palpus placed near the median apophysis and supported by the conductor (LEVI 1997). Moreover, the female abdomen may have more than one pair of humps and may be posteriorly bifurcated.

The spiders of the genus *Cyrtophora* build a specialized web to capture prey. This web, unique among orb-weaving spiders, consists of a horizontal orb formed by non-sticky threads with an irregular thread barrier under and below the

horizontal orb-web (LUBIN 1980). The spiral is formed by many radial threads which originate at the webs center and by a spiral thread that do not have the sticky drops commonly found in the spiral threads of other araneids spiders (FOELIX 1996).

Cyrtophora citricola (Forskål, 1775) is the species with the widest distribution in the genus, occurring in all the Old World and in Hispaniola. Recently, this species was found for the first time in South America, in Valle del Cauca, Colombia (LEVI 1997). *Cyrtophora citricola* probably was introduced in this region, where its web is found in plants and in ornamental and fruit trees, near streets and urbanized areas.

Now is reported, for the first time, the presence of this species in Belo Horizonte and Prudente de Morais, State of Minas Gerais, Brazil. Nine females, one male, and five immature specimens from Belo Horizonte, and one female from Prudente de Morais were examined. The format and coloration of the abdomen of these specimens show a great variation. The general coloration of the abdomen varies from black to pale yellow with dark spots. The abdomen, in some individuals, do not have the typical posterior humps. However, the genital structures (Figs 1-2) are similar to those presented by LEVI (1997: 250, figs 158-156). The total length of the fe-



Figures 1-2. Female genitalia of *Cyrtophora citricola* in ventral (1) and posterior (2) views. Bars represent 0.1 mm.

males varies from 8.8 to 15.2 mm and the male collected was 2.5 mm long, or less than one third of the total length of females. This discrepancy in length between males and females is common in the genus *Cyrtophora*. In the material examined by LEVI (1997), for example, the males of *C. citricola* have body lengths of about 30% of female's length, about the same as found in specimens from Brazil. These specimens were deposited in the collections of the Instituto Butantan, São Paulo (IBSP) and Laboratório de Aracnologia, Universidade Federal de Minas Gerais, Belo Horizonte (LAMG).

The actual distribution of *C. citricola* in Brazil may be wider than observed, since the presence of *Cyrtophora* are mentioned in an ecological paper on the Uloboridae spider *Philoponella vittata* (Keyserling, 1881) (ALVES-COSTA & GONZAGA 2001), conducted near Manaus city, in the Amazonas state, Brazil. However, the authors did not identify them to species. Specimens were collected and deposited in the collection of the Instituto Nacional de Pesquisas da Amazônia, in Manaus, but could not be found there to be examined. One photograph of webs of those specimens, taken by Marcelo O. Gonzaga, was generously loaned for examination. They are very similar to the ones built by *Cyrtophora*, but this needs confirmation through examination of the collected specimens.

Investigations about the exact date and the conditions of the introduction of *C. citricola* in the region are very difficult. However, being a common species in ornamental trees in Brazil and Colombia, it is possible that *C. citricola* was dispersed by man together with plant cuttings imported from countries where this species is natively found.

Material examined. BRAZIL, Minas Gerais: Belo Horizonte (Bairro Gutierrez), XI/2000, E.O. Machado *leg.*, 1 female, LAMG 157; Estação Ecológica da Universidade Federal de Minas Gerais, 19°52'S, 43°58'W, 930 m, V-VII/2000, E.S.S. Álvares *et al. leg.*, 1 female, 1 immature IBSP 39465; I/2001, E.S.S. Álvares *leg.*, 1 female, 1 immature, LAMG 10; 1 male, LAMG 11; V/2001, E.S.S. Álvares *et al. leg.*, 1 female, 25/XI/1999, E.S.S. Álvares & E.O. Machado *leg.*, 1 female, LAMG 25; Parque Municipal de Belo Horizonte, 10/XII/2000, E.S.S. Álvares *leg.*, 1 female, LAMG 149; Campus da Universidade Federal de Minas Gerais, 10/XI/2002,

E.S.S. Álvares *leg.*, 1 female, 3 immature, IBSP 39464; XII/2001, E.S.S. Álvares *leg.*, 2 females, IBSP 39463; Prudente de Moraes (Fazenda Sapé, 19°30'S, 43°07'W), 10/IX/2000, E.S.S. Álvares *leg.*, 1 female, LAMG 292.

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