



## A revision of the Neotropical nursery-web spider genus *Architis* (Araneae: Pisauridae)

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### Table of contents

Abstract .....	2
Introduction .....	2
Material and methods .....	3
Taxonomy .....	4
<i>Architis</i> Simon, 1898 .....	4
Misplaced species .....	5
Identification key for species of <i>Architis</i> .....	6
<i>Architis tenuis</i> Simon, 1898 .....	7
<i>Architis cymatilis</i> Carico, 1981 .....	11
<i>Architis maturaca</i> sp. nov. ....	14
<i>Architis comaina</i> sp. nov. ....	17
<i>Architis ikuruwa</i> Carico, 1981 .....	17
<i>Architis altamira</i> sp. nov. ....	20
<i>Architis dianasilvae</i> sp. nov. ....	20
<i>Architis tenuipes</i> (Simon, 1898) .....	21
<i>Architis turvo</i> sp. nov. ....	23
<i>Architis helveola</i> (Simon, 1898) .....	24
<i>Architis erwini</i> sp. nov. ....	26
<i>Architis colombo</i> sp. nov. ....	27
<i>Architis fritzmuelleri</i> sp. nov. ....	29
<i>Architis robusta</i> Carico, 1981 .....	31
<i>Architis brasiliensis</i> (Mello-Leitão, 1940) comb. nov. ....	33
<i>Architis capricorna</i> Carico, 1981 .....	35
Acknowledgements .....	39
References .....	39

## Abstract

The spider genus *Architis* Simon, 1898 is revised, resulting in sixteen species distributed from Panama to southern Brazil, all herein diagnosed, described and illustrated. *Pisaurina brasiliensis* Mello-Leitão, 1940 is transferred to *Architis* and considered a senior synonym of *A. sinops* Carico, 1989. The females of *A. capricorna* Carico, 1981 and *A. robusta* Carico, 1981 are described and illustrated for the first time. *Architis nitidopilosa* Simon, 1898 is considered a junior synonym of *A. tenuis* Simon, 1898 (the type species of the genus) and *A. suarez* Carico, 1989 a junior synonym of *A. cymatilis* Carico, 1981. The remaining species, *A. ikuruwa* Carico, 1981; *A. tenuipes* (Simon, 1898) and *A. helveola* (Simon, 1898) are redescribed and illustrated. *Architis paulistana* Mello-Leitão, 1917 is synonymised with *Aglaoctenus lagotis* (Holmberg, 1876) (Lycosidae: Sosippinae) based on its original description and type locality. Eight new species are described: *A. erwini* **sp. nov.**, based on male and female specimens from Ecuador; *A. comaina* **sp. nov.** (male and female) and *A. dianasilyae* **sp. nov.** (female only) from Peru; *A. maturaca* **sp. nov.** (male and female) and *A. altamira* **sp. nov.** (female only) from Brazilian Amazonia; *A. colombo* **sp. nov.** (male and female), *A. fritzmulleri* **sp. nov.** (female only) and *A. turvo* **sp. nov.** (female only) from southern and southeastern Brazil.

**Key words:** taxonomy, *Staberius*, Lycosoidea, Sosippinae

## Introduction

The spider family Pisauridae Simon, 1890 is represented in South America mainly by three genera: *Thaumasia* Perty, 1833; *Architis* Simon, 1898 and *Staberius* Simon, 1898 (Platnick 2007). The first genus currently comprises 17 species distributed from Panama and West Indies to Argentina, and has never received thorough revisionary treatment (Platnick 2007). The remaining genera share a common taxonomic history, since both were described in the same publication (Simon 1898a) and later revised by Carico (1981). The genus *Staberius* includes only two species (Platnick 2007), but it is mainly known by its type species, *S. spinipes* (Taczanowski, 1874) and was sometimes erroneously treated as monotypic (e.g. Sierwald 1989, 1990). The genus *Architis* is larger and currently includes eleven species (Platnick 2007). Only three of these, *A. cymatilis* Carico, 1981, *A. nitidopilosa* Simon, 1898 and *A. tenuis* Simon, 1898, are frequently mentioned in the literature (Nentwig 1985; Sierwald 1989, 1990). Both genera are extremely common throughout South America and their representatives occur mainly on the foliage of understorey vegetation (personal observation).

The first impetus to the current study was a description of some unknown species of *Architis* collected during a series of inventories of spiders in Brazil. Based on this simple objective, a more intensive search in several spider collections was undertaken, resulting in the discovery of more undescribed species, females of species originally known only by males, and some taxonomic problems within the genus. The studies of Carico (1981, 1989, 1993) are certainly the most important treatments of *Architis* and *Staberius* up to date. In these studies both genera were clearly diagnosed and illustrated, and several new species were added to *Architis*. All species known until that time (except *Architis paulistana* Mello-Leitão, 1917) were represented by good quality descriptions and illustrations. However, some problems remained, mostly due to scarcity of material at that time. Several species remained poorly known, represented only by males (e.g. *Architis sinops* Carico, 1989). Other species were described under two different names, probably due to difficulties in evaluating intraspecific variability among a small number of specimens (*A. cymatilis* and *A. suarez* Carico, 1989). Additionally, some morphological details were not described in several species, like the articulated ventral tibial apophysis in the male pedipalpus of *Architis helveola* (Simon, 1898). Finally, the geographic distribution of the species was not reported in detail in those studies, since the material examined was not listed. The accumulation of large quantities of *Architis* specimens in spider collections during the last 25 years, mostly due to several recent biodiversity inventories in South America, has created an opportunity to increase the knowledge of this genus. Consequently, this project has grown from a description of new species to a complete revision of the genus. The most important problem remaining, the distinction between *Architis* and *Staberius* and