



## ***Arauchemus*, a new spider genus of the *Echemus* group (Araneae: Gnaphosidae: Echeminae) from Araucaria Forest areas in southern Brazil, with notes on habitat preferences and phenology**

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### **Abstract**

The new genus *Arauchemus* is proposed to include two new species from southern Brazil. *Arauchemus graudo* **sp. nov.** and *Arauchemus miudo* **sp. nov.** are described from São Francisco de Paula in the state of Rio Grande do Sul, Brazil. Both sympatric species were sampled along 20 months at three different habitats: primary and secondary forests and at *Pinus* silvicultures. *A. graudo* **sp. nov.** and *A. miudo* **sp. nov.** presented larger numbers at primary and secondary forests respectively. Both species presented stenochronic male activity patterns with male activity peak between the end of summer and beginning of autumn. Morphometric data on male cephalothorax indicate large size overlapping of both species.

**Key words:** Neotropical region, taxonomy, ecology, phenology, new species

### **Introduction**

The family Gnaphosidae includes nearly 2100 species in over 115 genera worldwide (Platnick, 2011). Based on the same author 11 genera include species described from Brazil, being: *Apodrassodes* Vellard 1924, *Camillina* Berland 1919, *Drassodes* Westring 1851, *Echemus* Simon 1878, *Eilica* Keyserling 1891, *Zelotes* Gistel 1848, *Zimiro-mus* Banks 1914 of worldwide distribution; *Apopyllus* Platnick & Shadab 1984 of New World distribution; *Vectius* Simon 1897 of South American distribution and *Parabonna* Mello-Leitão 1947 and *Amazoromus* Brescovit & Höfer 1994 exclusively recorded from Brazil. Other two Gnaphosidae genera include species introduced to Brazil: *Urozelotes* Mello-Leitão 1938 and *Trachyzelotes* Lohmander 1944 (Platnick & Murphy, 1984; Brescovit et al., 2008).

In this paper, we propose a new genus and describe two new species of Gnaphosidae from Araucaria Forests of southern Brazil, presenting ecological data for both new species. The herein described new species presents procurved posterior eye row, pectinate tarsal claws and toothed cheliceral promargin which suggest their placement in the American subfamily Echeminae, following Platnick & Shadab (1976). However, more recently, Murphy (2007) provided an extensive illustrated work on Gnaphosidae proposing an artificial grouping of many genera and avoiding the former and usual subfamily placements. Species belonging to the “Echemus group”, proposed by Murphy (2007: 50), have well developed dorsal abdominal scuta in males, plain grayish abdomen, large anterior median eyes and toothed cheliceral promargin, characters also shared with the species herein described. Based on the evidence provided by Platnick & Shadab (1976) and Murphy (2007) we propose the inclusion of this genus in the subfamily Echeminae.

### **Material and methods**

The material examined was deposited in the following arachnological collections (abbreviations and curator in