



## Until dirt do us apart: On the unremarkable palp morphology of the spider *Sternospina concretipalpis* Schmidt & Krause, 1993, with comments on the genus *Prionolaema* Simon, 1894 (Araneae, Tetragnathidae)

DIMITAR DIMITROV<sup>1</sup>, FERNANDO ÁLVAREZ-PADILLA<sup>1,2</sup> & GUSTAVO HORMIGA<sup>1</sup>

<sup>1</sup> Department of Biological Sciences, The George Washington University, Washington, D.C. 20052, USA.

E-mail: dimitard@gwu.edu, hormiga@gwu.edu

<sup>2</sup> Schlinger Chair of Arachnology Postdoctoral Fellow, California Academy of Sciences, Department of Entomology, 875 Howard Street, San Francisco, CA 94103, USA. E-mail: falvarezpadilla@calacademy.org

### Abstract

Examination of the holotype of the tetragnathid spider *Sternospina concretipalpis* Schmidt & Krause, 1993 demonstrates that the extraordinary claim by the authors of the original description of this species that the male palps are fused is unfounded. The monotypic genus *Sternospina* Schmidt & Krause, 1993 is a junior synonym of *Tylorida* Simon, 1894 and *S. concretipalpis* is a junior synonym of the common species *Tylorida striata* (Thorell, 1877). The genus *Prionolaema* Simon, 1894 is a junior synonym of *Tetragnatha* Latreille, 1804, resulting in two new combinations, *Tetragnatha aetherea* (Simon, 1894) and *T. gracilis* (Bryant, 1923). *Tetragnatha earmra* Levi, 1981 is a junior synonym of *Tetragnatha gracilis* (Bryant, 1923).

**Key words:** spiders, Tetragnathidae, systematics, Antigua, Comoros Islands

### Introduction

The family Tetragnathidae is a lineage of orb weaving spiders whose members are often found in vegetation near bodies of fresh water, such as lakes, small streams and rivers. Currently there are 51 valid genera of tetragnathids listed in Platnick's catalog (2008). Most of the species diversity of the family is concentrated in the tropics, although some genera, like *Leucauge* and *Tetragnatha*, are widely distributed. Despite recent efforts to elucidate tetragnathid systematics (e.g., Álvarez-Padilla, 2007; Dimitrov and Hormiga, in press; Tanikawa, 2001) there are still many poorly known genera awaiting systematic revision. This paper deals with two such genera, *Sternospina* Schmidt & Krause, 1993 and *Prionolaema* Simon, 1894. The case of *Sternospina* is rather exceptional, as according to the authors of the original description the only species of this genus, *Sternospina concretipalpis* Schmidt & Krause, 1993, is unique among spiders in having both palps fused together (Schmidt and Krause, 1993). Presumably the left and right male palps are fused in the area of the tibia and only one of them develops the rest of the palpal structures (cymbium, tegular and embolic divisions). Although palpal asymmetry is rare in spiders, it has been described in some pholcid species belonging to the genus *Metagonia* (Huber, 2004), in which both palps develop but they differ in size and probably in function. In contrast, "palpal fusion," as described by Schmidt and Krause (1993) for *S. concretipalpis*, has never been documented in the scientific literature. The genus *Prionolaema* was described by Simon (1894) based on a subadult male specimen from Venezuela (Fig. 2A–B); this practice alone invites skepticism about the validity of the genus as now we know that characters, such as eye pattern, which at the time were considered very