



First record of the wolf spider subfamily Artoriinae and the genus *Artoria* from China (Araneae: Lycosidae)

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Abstract

The subfamily Artoriinae Framenau, 2007 is here firstly recorded from China, by reporting *Artoria parvula* Thorell, 1877 and *Artoria ligulacea* (Qu, Peng & Yin, 2009) **comb. nov.** from Yunnan Province. These records, the first of the genus north of the Tropic of Cancer, represent a considerable range extension of the subfamily, which is considered of Gondwanan origin.

Key words: Gondwana, *Hygrolycosa*, new record, new combination

Introduction

In China, 290 species of wolf spiders (family Lycosidae Sundevall, 1833) in 22 genera have been recorded (Platnick 2011; Yin *et al.* 1997). However, recent studies reveal that the knowledge of this group is far from complete for the region. For example, specimens initially identified as *Pardosa mixta* (Kulczyński, 1887) from Xinjiang, China (Chen & Song 2002) were subsequently recognised as a new species, *P. pseudomixta* Marusik & Fritzen, 2009 (Marusik & Fritzen 2009). A phylogenetic analysis of the genus *Venonia* Thorell, 1894 based on morphological characters clearly showed that *Venonia spirocysta* Chai, 1991 from the South of China is currently misplaced in that genus (Yoo & Framenau 2006).

The genus *Artoria* Thorell, 1877 was erected based on a male of *A. parvula* Thorell, 1877 from Indonesia (Framenau 2002). The female of the species was described recently based on specimens collected in northern Australia (Framenau 2005). Currently, *Artoria* includes 31 species, 28 of which are found in the Australasian and Pacific regions (Framenau 2002, 2003, 2005, 2007, 2008; Framenau *et al.* 2006; Framenau & Hebets 2007; Vink 2002). The remaining three species, all known from Africa, were considered misplaced by Framenau (2008).

Artoria is the type genus of the wolf spider subfamily Artoriinae Framenau, 2007 that also includes a number of other Australasian, Pacific and New Zealand genera, such as *Anoteropsis* L. Koch, 1878, *Artoriopsis* Framenau, 2007, *Diahogna* Roewer, 1960, *Kangarosa* Framenau, 2010, *Lycosella* Thorell 1890, *Notocosa* Vink, 2002, *Syroloma* Simon 1900 and *Tetralycosa* Roewer, 1960 (Framenau 2007, 2010). Members of this subfamily share as synapomorphy a basoembolic apophysis on the male pedipalp (Figs 1E, 2C, 4E, 5C). The monophyly of this subfamily was supported by a molecular phylogenetic analysis (Murphy *et al.* 2006). The distribution of Artoriinae suggests a Gondwana origin and recently two South American genera have been proposed as potential members of this subfamily (Piacentini & Grismado 2009).

During our exploration of spiders from Yunnan Province, Southwest China, *A. parvula* was found in this country for the first time, representing a considerable northern range extension for this species and therefore subfamily. In addition, we collected specimens of *Hygrolycosa ligulacea* Qu, Peng & Yin, 2009 in Yunnan Province, and propose the transfer of this species to *Artoria* based on the male pedipalp morphology.