



Three new crab spiders from Xishuangbanna Rainforest, southwestern China (Araneae: Thomisidae)

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Abstract

This study deals with three new crab spiders, *Alcimochthes meridionalis* **sp. nov.**, *Lycopus primus* **sp. nov.** and *Oxytate capitulata* **sp. nov.**, all from Xishuangbanna Rainforest, Yunnan, China. The genus *Lycopus* Thorell, 1895, formerly described from females only, is reported from China for the first time in both sexes.

Key words: Description, Dietinae, Oriental region, taxonomy

Introduction

Thomisidae, the sixth largest spider family, includes 173 genera and 2085 species, of which 71 genera and more than 500 species are recorded from Asia (Murphy & Murphy 2000; Platnick 2009). According to the suprageneric classification proposed by Petrunkevitch (1928) and in wide use until recently (Roewer 1955; Ono 1988), the species described in this paper would belong to the subfamily Dietinae, characterized by the presence of tarsal claw tufts formed by tenent hairs. However, Lehtinen (2005) proved that Dietinae, as well as its nominate tribe Dietini, are polyphyletic. The Dietini sensu Lehtinen (2005) includes only eight Old World genera, all species have bright green body color, the genus *Alcimochthes* Simon, 1885 was excluded from Dietini. Later Benjamin *et al.* (2008) proved the monophyly of Thomisidae with four major lineages, the *Borboropactus* clade, *Epidius* clade, *Stephanopsis* clade and *Thomisus* clade. Their conclusion differs from traditional concepts of phylogenetic relationships within Thomisidae. The genus *Oxytate* L. Koch, 1878, considered as a member of Dietini by Lehtinen (2005), was placed at the root of the *Thomisus* clade in their cladograms. But Benjamin *et al.* (2008) included only 25 of the 173 Thomisidae genera in their analysis, thus the results have to be considered as provisional. A thorough generic revision of Oriental crab spiders is an urgent desideratum but beyond the scope of the present study. Although the delineation of Dietini sensu Lehtinen (2005) seems reasonable, we will neither allocate our new species to subfamilies nor provide diagnoses of genera in this paper.

The genera *Alcimochthes* and *Lycopus* Thorell, 1895 are poorly known because of inadequate descriptions and illustrations in the previous publications. Before this study, the genus *Alcimochthes* included only two species, the type species *A. limbatus* Simon, 1885, and *A. melanophthalmus* Simon, 1903. Although the type species was well studied, *A. melanophthalmus* was poorly described without any illustrations. The genus *Lycopus* was created by Thorell (1895) with the type species *L. edax* Thorell, 1895 from Myanmar. It includes five species from India, the Moluccas, New Guinea and Southeast Asia, all exclusively described from female specimens. The genus *Oxytate* includes 23 species from Australia, Africa and Southeast Asia, eight of them were recorded from China (Thorell 1895; Song & Zhu 1997; Zhang & Yin 1998; He & Hu 1999; Tang *et al.* 1999; Benjamin 2001; Ono 2001; Tang *et al.* 2008; Platnick 2009).