



## On four new canopy spiders of Dictynidae (Araneae) from Xishuangbanna Rainforest, China

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### Abstract

Four new Dictynidae species from the rainforest canopy of Xishuangbanna, Yunnan Province, China, are described in the present paper. Two belong to the genus *Sudesna* Lehtinen, 1967: *S. circularis* **sp. nov.** (male, female) and *S. digitata* **sp. nov.** (female). And the others are assigned to a new genus, *Bannaella* **gen. nov.**, which are *B. sinuata* **sp. nov.** (female) and *B. tibialis* **sp. nov.** (male, female). The new genus is similar to *Brommella* and *Scotolathys* in having similar appearances, but can be easily distinguished by the broad dorsal tibial apophysis of the male palp and the simple epigynal ducts of the female. Morphological descriptions, illustrations and photos of all species are given. Additionally, photos of two Chinese species, *Brommella punctosparsa* (Oi, 1957) from Hunan and *Sudesna hedini* (Schenkel, 1936) from Guizhou, are also presented, in order to compare with the new genus and the new species of *Sudesna*.

**Key words:** New genus, new species, *Bannaella*, *Sudesna*, Yunnan, taxonomy

### Introduction

The meshweb spider family Dictynidae is a group characterized by a small body size (less than 5 mm), a uniseriate calamistrum, a usually undivided cribellum and the male palp without a median apophysis (Chamberlin & Gertsch 1958). Lehtinen (1967) redefined this family to include a number of ecribellate spiders, and divided it into 6 subfamilies and nearly 50 genera. However, according to the recent version of the world spider catalog (Platnick 2011), only the genera of Lehtinen's subfamilies Dictyninae, Cicurinae and Tricholathysinae are considered valid. So far, 50 genera and 566 species of this family are recorded from the world, including 12 genera and 37 species from China (Platnick 2011). Only *Ajmonia velifera* (Simon, 1906) was recorded from Yunnan Province, other Dictynidae reported from China have a palaeartic distribution (Song *et al.* 1999).

Rainforest canopy remains largely unknown for taxonomists and ecologists worldwide. Canopy spiders were studied during the last two decades (Kitching *et al.* 1993; Otto & Floren 2010; Weerakoon 2003). Recently, an extensive survey of spiders from the rainforest of Xishuangbanna, South of Yunnan Province, has been done. Rainforest canopy spiders from China are concerned for the first time. Up to now, a new family (Sinopimoidae), three new genera of Thomisidae, and about 20 new species from rainforest canopy of Xishuangbanna were published (Li & Wunderlich 2008; Lin & Li 2008, 2009; Tang & Li 2010; Zhang *et al.* 2011).

In the present paper, four new species of Dictynidae from rainforest canopy in Xishuangbanna are described. Two of them belong to the genus *Sudesna* Lehtinen, 1967 (*S. circularis* **sp. nov.** and *S. digitata* **sp. nov.**). The others cannot be assigned to any known Dictynidae genus. Here we erected a new genus *Bannaella* **gen. nov.** to accommodate them (*B. sinuata* **sp. nov.** and *B. tibialis* **sp. nov.**). Photos of two additional species, *Brommella punctosparsa* (Oi, 1957) and *Sudesna hedini* (Schenkel, 1936), are also presented in order to compare them with the new genus and the new species of *Sudesna*.