



Diversity of spiders in Fanjing Mountain Nature Reserve, Guizhou, China, III: A new species of *Brommella* (Dictynidae)

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Abstract

A new Chinese species of the dictynid genus *Brommella* Tullgren—*Brommella digitata* **sp. nov.**—from Fanjing Mountain Nature Reserve of Guizhou Province is photographed, illustrated and described. It can be distinguished from other *Brommella* species by the complex conductor and finger-like tegular apophysis of the male palp and anteriorly located copulatory openings of the female epigyne. This is the second species of *Brommella* from China. Additional photos, illustrations and material of *B. punctosparsa* (Oi 1957) are provided for comparison. The serrated embolus is firstly described for both species on the basis of SEM photos.

Key words: Southeast Asia, caves, endemic, taxonomy

Introduction

The ‘meshweb spider’ genus *Brommella* Tullgren 1948 is a small group of Dictynidae with only six species (World Spider Catalog 2015) distributed across three continents. The type species, *B. falcigera* (Balogh 1935) and *B. hellenensis* Wunderlich 1995 are known from north-western, southern Europe and Turkey; *B. bishopi* (Chamberlin & Gertsch 1958), *B. lactea* (Chamberlin & Gertsch 1958) and *B. monticola* (Gertsch & Mulaik 1936) are recorded from the south-western USA; and *B. punctosparsa* (Oi 1957) is occurring in East Asia, including southern China, Korea and Japan. Most known species are endemic to one country, except *B. falcigera* and *B. punctosparsa*.

Species of *Brommella* live in leaf litter, under stones or in caves (Chamberlin & Gertsch 1958; Almquist 2006; personal observation). Most species have a strong, anteriorly directed retrolateral tibial apophysis, a relatively small lateral tibial apophysis, a bifurcate retrolateral conductor, a pair of separated copulatory openings and strongly convoluted copulatory ducts.

Material from recent field trips yielded a new species from caves in the Fanjing Mountain Nature Reserve of Guizhou Province, China, and this species is here photographed, illustrated and described. Additionally, we also provide photos and illustrations of *B. punctosparsa*, collected from southern China, to allow for a better comparison of the two Asian species. This is the third paper in a series on the spiders of Mount Fanjing, after six new species of Phrurolithidae (Wang *et al.* 2015) and 16 species of Coelotinae (Agelenidae) (Jiang *et al.* 2015) were recently described.

Material and methods

All specimens are preserved in 80% ethanol and were examined, illustrated, photographed and measured using a Leica M205C stereomicroscope equipped with drawing tube, DFC420 Camera and LAS software (Ver. 4.0), or a Leica DM2000 biomicroscope with DFC295 Camera and LAS software (Ver. 4.2). Male pedipalps and epigynes