



New armored spiders of the family Tetrablemmidae from China

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Abstract

Five new species of the family Tetrablemmidae, occurring in the southern China, are described and illustrated: i.e., *Lehtinenia arcus* **sp. nov.**, *Shearella sanya* **sp. nov.** from tropical shrub in Hainan Island, and *Indicoblemma cruxi* **sp. nov.**, *Singaporemma bifurcata* **sp. nov.**, *Tetrablemma nandan* **sp. nov.** from caves of Yunnan-Guizhou Plateau. The genera *Indicoblemma*, *Shearella* and *Singaporemma* are reported in China for the first time. All type specimens are deposited in the Institute of Zoology, Chinese Academy of Sciences, Beijing.

Key words: Taxonomy, new record, rainforest, cave, shrub

Introduction

Tetrablemmidae are known as armored spiders because of the complicated patterns of their abdominal scuta (Lehtinen 1981). Members of the family mainly distribute in tropical or subtropical regions. They are usually living in litters or moss under rainforests, and in dark caves. Tetrablemmidae has long been little-known for a long time comparing with other groups of spiders. In the past few decades, Brignoli (1972a, b, 1973, 1974, 1975, 1976, 1978a, b, 1980), Bourne (1980, 1981), Brescovit (2005), Burger (2005, 2008a, b), Burger *et al.* (2006a; 2006b), Deeleman-Reinhold (1980, 1993), Labarque and Grismado (2009), Lehtinen (1981), Schwendinger (1989, 1994), Shear (1978, 1979), and Wunderlich (1995) had done many predominant works on the family Tetrablemmidae. So far, 136 species belonging to 30 genera have been described all over the world (Lian 2009; Lin *et al.* 2009; Platnick 2009).

Research of Tetrablemmidae in China started only in recent years. The subfamily Tetrablemmiinae was first reported from Hainan Island by Tong and Li (2008) with 4 genera and 5 species. Subsequently, Lian (2009) described a new species of the subfamily Pacullinae, *Perania robusta*, from Mt. Gaoligongshan in Yunnan. At present, 5 genera and 6 species were reported in China.

We have done a number of field investigations in southern China to explore the Tetrablemmidae taxa. The current paper deals with armored spiders collected from tropical shrub in Hainan Island and caves on Yunnan-Guizhou Plateau, including 5 new species.

Material and methods

Specimens were examined and measured using an Olympus SZX12 stereomicroscope. Further details were studied under an Olympus BX51 compound microscope. All drawings of prosoma, opisthosoma, chelicerae, male palpi and female genitalia were made using a drawing apparatus attached to Olympus BX51 compound microscope, and then inked on ink jet plotter paper. Male palpi and female epigyne were examined and illustrated after they were dissected from the spiders' bodies. Vulvae of female epigyne were removed and treated in KOH solution or lactic acid before illustration. To show the course of the sperm duct, in the case of