



A new *Platocoelotes* species and first description of the male of *Platocoelotes icohamatoides* from Hunan, China (Araneae: Amaurobiidae: Coelotinae)

HAIQIANG YIN, XIANG XU¹ & HENGMEI YAN

College of Life Sciences, Hunan Normal University, Changsha 410081, P. R. China

¹Corresponding author. E-mail: xux@hunnu.edu.cn

Abstract

We describe a new coelotine species, *Platocoelotes bifidus* **sp. nov.** and the male of *Platocoelotes icohamatoides* (Peng & Wang) from Hunan Province of China. *Platocoelotes* found only in caves (nine species) consistently differ from *Platocoelotes* found in surface habitats (or both cave and surface habitats; six species) in some genitalic characters (only one patellar apophysis, very short cymbial furrow, simple spermathecae). Nevertheless, the entire genus is united by the presence of a conductor ventral apophysis on the male palp, a broad, shallow atrium, and distinct epigynal hoods. We briefly discuss the distribution and diversity of cave-associated species of *Platocoelotes*.

Key words: Taxonomy, new species, morphology, Coelotinae, cave spider

Introduction

The spider genus *Platocoelotes* Wang (Araneae: Amaurobiidae: Coelotinae) was originally established for four Chinese species of *Coelotes* Blackwall (Wang 2002). Fourteen *Platocoelotes* species are now known (Platnick 2009; Wang 2009); new species have been described by Liu & Li (2008), Wang (2003), Wang & Jäger (2007) and Xu & Li (2007, 2008); one species was removed from *Platocoelotes* (Xu, Li & Wang 2006). Three species are known from only one sex, including *Platocoelotes icohamatoides* (Peng & Wang), known only from females. Here we describe another new species, *Platocoelotes bifidus* **sp. nov.**, and the male of *P. icohamatoides* from caves in Hunan.

Ten *Platocoelotes* species have been collected exclusively in caves (*P. ampulliformis* Liu & Li, *P. bifidus* **sp. nov.**, *P. brevis* Liu & Li, *P. furcatus* Liu & Li, *P. globosus* Xu & Li, *P. icohamatoides* (Peng & Wang), *P. latus* Xu & Li, *P. paralatus* Xu & Li, *P. polyptychus* Xu & Li, *P. strombuliformis* Liu & Li); *P. kailiensis* Wang is known from cave and other habitats. All known cave-associated *Platocoelotes* species are distributed in Guizhou Province, Hunan Province and Guangxi Zhuang Autonomous Region (Fig. 5). Study of further caves in these regions may result in the discovery of further new cave-associated *Platocoelotes* species, but this still needs to be confirmed by future collecting.

The diagnosis of the genus *Platocoelotes* required slight modification (Liu & Li 2008; Xu & Li, 2008) after several species found only in caves were added to *Platocoelotes* (Liu & Li 2008; Xu & Li 2007, 2008). Cave *Platocoelotes* species share the following characters, which differ from epigeal *Platocoelotes* species: only one patellar apophysis, very short cymbial furrow (about one third of cymbial length); and simple spermathecae (not developed into spermathecal base and spermathecal stalk). Despite these conspicuous differences, the presence of conductor ventral apophysis (called “conductor posterior apophysis” in Wang 2002) on the male palp, the broad, shallow atrium, and the distinct epigynal hoods of the female epigynum indicate that cave *Platocoelotes* are congeneric with the type species (Liu & Li 2008).