



## Four new troglophilous species of the genus *Pholcus* Walckenaer (Araneae, Pholcidae) from Guizhou Province, China

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### Abstract

Four new troglophilous *Pholcus* spiders from Guizhou Province, China, are diagnosed, described and illustrated under the names: *Pholcus anlong* **sp. nov.**, *P. ceheng* **sp. nov.**, *P. xingren* **sp. nov.** and *P. xingyi* **sp. nov.** This is the first report on cave-dwelling *Pholcus* species from Guizhou Province, China.

**Key words:** taxonomy, Pholcidae, new species, cave, Guizhou

### Introduction

The spider family Pholcidae currently contains 84 genera and 1111 species world-wide, and 118 species belonging to 12 genera in China (Platnick 2011, Song *et al.* 1999, Zhang & Zhu 2009; Tong & Li 2009, 2010; Li & Wang 2011). Members of the family are often small to medium-sized, haplogyne; vary in habitus, size and life style. They usually with eight or six eyes, cave species often blind (Huber, 2000). The family occupied a wide range of ecosystems and habitats, many species have been found in caves, and some of these are highly troglomorphic, including the total loss of eyes (Chen, Zhang & Zhu 2009).

*Pholcus* Walckenaer, 1805 is the largest genus of the family Pholcidae, with 174 species reported worldwide including 66 Chinese species (Platnick 2011; Zhang & Zhu 2009; Tong & Li 2010; Tong & Ji 2010). Until now no large revision of this genus has been done. However, Huber (2001) has made a few taxonomic remarks. Zhang & Zhu (2009) reviewed the Chinese *Phoclus*, including 55 species from China, and detailed described the morphological character and outlined the research history of Chinese *Pholcus*. So far, only three species of *Pholcus* were recorded from Guizhou Province, *P. spilis* Zhu & Gong, 1991, *P. bidentatus* Zhu *et al.* 2005 and *P. kimi* Song & Zhu, 1994.

Guizhou is located in the southwest China, and covers an area of over 176,000 square kilometers. It has a subtropical humid climate and there are few seasonal changes. The weather is frequently cloudy and rainy all year. Unique karst physiognomy retains many antique relict species that have been extinct in many other place of the North Hemisphere, and extremely varying topography and the unique dualistic system of surface and underground karst area bring rich species diversity (Rong & Yang 2004). In addition, Guizhou has the longest (Shuanghe Cave, Suiyang County), the biggest (Getuhe Cave, Ziyun County) and arguably the best (Zhijin Cave, Zhijin County) caves in China, as the climate and geology tends to produce caves that are more voluminous and better decorated than elsewhere in the country.

While examining spider specimens collected from some caves, Guizhou Province, we found four new *Pholcus* species, all of them live in the cave, with nearly uniform somatic habitus and each eye triad of male on the top of a relatively longer eye-stalk. This is the first reported the *Pholcus* species from Guizhou's caves. Here we recognized and described them under the names *Pholcus anlong* **sp. nov.**, *P. ceheng* **sp. nov.**, *P. xingren* **sp. nov.** and *P. xingyi* **sp. nov.**