



## Six new cave-dwelling pholcid spiders (Araneae: Pholcidae) from Hainan Island, with two newly recorded genera from China

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### Abstract

Cave-dwelling pholcid spiders of Hainan Island, China are studied for the first time. Nine species, including six new species and one new recorded species from China, are reported, i.e. *Belisana desciscens* **sp. nov.**, *B. exian* **sp. nov.**, *B. maogan* **sp. nov.**, *B. yalong* **sp. nov.**, *Holocneminus huangdi* **sp. nov.**, *Modisimus culicinus* (Simon, 1893) **rec. nov.**, *Pholcus exceptus* **sp. nov.**, *Pholcus gui* Zhu & Song, 1999, and *Physocyclus globosus* (Taczanowski, 1874). The genera *Holocneminus* and *Modisimus* both are newly recorded from China. All the six new species are diagnosed, described and illustrated. The newly recorded species *Modisimus culicinus* (Simon, 1893) is illustrated, too.

**Key words:** Taxonomy, new species, endemic species, tropical biodiversity, illustration

### Introduction

The Pholcidae, known as daddy long legs spiders, is a large family with a worldwide distribution. They usually hang inverted in a sheet web, which is mostly domed with an irregular mesh above and sometimes also below the sheet. These webs are constructed in dark recesses, in caves, under rocks and loose bark, abandoned mammal burrows and undisturbed areas in buildings. At present, a total of 85 extant genera and 999 extant species are recorded worldwide, of which 10 genera and 54 species occur in China (Platnick 2008).

Hainan, situated at the southernmost part of China, is the second-largest island off the coast of mainland China (after Taiwan). It is considered as a tropical biodiversity rich region, and supports many endemic species. However, the spider fauna of this region is still poorly studied (Lin & Li 2008; Liu *et al.* 2008; Tong & Li 2006, 2007, 2008a, 2008b, 2008c, 2008d; Wang *et al.* 2008). Previously, only ten pholcid species, i.e. *Artema atlanta*, *Belisana aliformis*, *B. huberi*, *B. lamellaris*, *Crossopriza lyoni*, *Khorata diaoluoshanensis*, *Micropholcus fauroti*, *Pholcus gui*, *Physocyclus globosus* and *Smeringopus pallidus* (Song *et al.* 1999; Tong & Li 2008a), were recorded in this area. No cave-dwelling pholcid spiders have previously been recorded from Hainan Island. In an expedition to Hainan with the objective of collecting cave spiders, some pholcids were collected. Six new species, one newly recorded species, and two previously recorded species belonging to five genera, are reported in the present paper, including the first records of the genera *Holocneminus* and *Modisimus* from China.

### Material and methods

Taxonomic descriptions and terminology follow Huber (2000, 2005). Specimens were examined using an Olympus SZX12 stereomicroscope. Further details were studied under an Olympus BX51 compound microscope. All illustrations were made using a drawing tube and inked on ink jet plotter paper. Photos were