



## New and little known pholcid spiders (Araneae: Pholcidae) from Laos

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### Abstract

Fourteen new species belonging to five pholcid genera are reported from Laos: *Belisana champasakensis* **sp. nov.** (male), *B. crystallina* **sp. nov.** (male and female), *B. gigantea* **sp. nov.** (male and female), *B. khanensis* **sp. nov.** (male and female), *B. lancea* **sp. nov.** (male), *B. martensi* **sp. nov.** (male), *B. tadetuensis* **sp. nov.** (male), *B. xiangensis* **sp. nov.** (male and female), *Calapnita longa* **sp. nov.** (male), *Khorata circularis* **sp. nov.** (male and female), *K. dupla* **sp. nov.** (male and female), *Pholcus arcuatilis* **sp. nov.** (female), *P. sublaksao* **sp. nov.** (male and female) and *Spermophora falcata* **sp. nov.** (male and female). The genera *Belisana* and *Spermophora* are reported from Laos for the first time.

**Key words:** Taxonomy, morphology, biodiversity, Southeast Asia

### Introduction

With 1340 described species in 90 genera, Pholcidae is among the most species-rich spider families (Platnick 2013). Pholcid spiders have a global distribution and occupy a wide range of habitats in a variety of ecosystems, but most of the biodiversity is concentrated in the tropical and subtropical regions (Huber 2005a). Huber (2000, 2001, 2003a, b, c, 2005a, b, 2009, 2011) reported a large number of new species and revised many genera in this family. Recently, a cladistic analysis based on molecular data has improved the classification of the family (Dimitrov *et al.* 2012).

The pholcid spider fauna of Laos is relatively diverse (Platnick 2013). Huber (2005b, 2011) reported four species of *Khorata* and 14 species of *Pholcus* from Laos. Jäger *et al.* (2012) recorded several cosmopolitan species of the genera *Calapnita*, *Crossopriza*, *Leptopholcus*, *Micropholcus*, *Physocyclus* and *Smeringopus*. In this paper, 14 new species belonging to five genera are described, bringing the total Laotian pholcid fauna to 10 genera and 38 species.

### Material and methods

Specimens were examined and measured with a Leica M205 stereomicroscope. Details were studied with an Olympus BX51 compound microscope. Illustrations were made using a camera lucida attached to the Olympus BX51 microscope, and inked using an ink jet plotter. Male and female genitalia were examined and illustrated after they were dissected from the spiders. Epigyna were removed and treated in 10% warm solution of potassium hydroxide (KOH) before illustration. Left pedipalpi of male spiders were illustrated, except as otherwise indicated. Type specimens were preserved in 75% ethanol solution. Photos were taken with an Olympus C7070 wide zoom digital camera (7.1 megapixels) mounted on a Leica M205 stereomicroscope. The images were montaged using Helicon image stacking software. All measurements are given in millimeters unless noted otherwise. Leg measurements are shown as: total length (femur + patella + tibia + metatarsus + tarsus). Leg segments were measured on their dorsal side. Terminology and taxonomic descriptions follow Huber (2000, 2005a).