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

ZHIYUAN YAO1 & SHUQIANG LI1, 2

1Institute of Zoology, Chinese Academy of Sciences, Beijing 100101, China
2Corresponding author: lisq@ioz.ac.cn

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, 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).