



## The Goblin Spiders of the Genus *Opopaea* (Araneae, Oonopidae) in Hainan Island, China

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### Abstract

Seven species of *Opopaea* are recognized from Hainan Island, China. Four species are found to be new to science: *Opopaea diaoluoshan* **sp. nov.** (male/female), *Opopaea furcula* **sp. nov.** (male/female), *Opopaea sanya* **sp. nov.** (male) and *Opopaea vitrispina* **sp. nov.** (male/female). One species, *Opopaea sauteri* Brignoli, 1974 is firstly recorded from this area. All of them, including the two previously known species, *Opopaea cornuta* Yin & Wang, 1984 and *Opopaea gibbifera* Tong & Li, 2008, are diagnosed and illustrated. A key to all the seven species of Hainan Island is provided.

**Key words:** Taxonomy, terrestrial habitats, forest canopy, diagnosis, distribution

### Introduction

Oonopidae, or goblin spiders are a megadiverse spider family with currently 512 described species in 75 genera and approximately 2500 expected species worldwide (Platnick 2009). They can be found in most terrestrial habitats, mostly in litter and under bark, but also in forest canopy. However, our understanding of the Chinese oonopid fauna is quite limited. So far only 33 species have been recorded in the genera *Camptoscaphiella*, *Epectris*, *Gamasomorpha*, *Ischnothyreus*, *Oonopinus*, *Opopaea*, *Orchestina*, *Pseudotriaeris*, *Trilacuna* and *Xestaspis* (Song *et al.* 1999; Tong & Li 2007, 2008, 2009).

The genus *Opopaea* Simon, 1891, is one of the most species-rich genera in the Oonopidae. It consists of 52 existing species, mainly distributed in the pantropical region (Saaristo & Marusik 2008). The *Opopaea* fauna of China has been poorly studied; only five species were described (Song *et al.* 1999; Tong & Li 2008): *O. cornuta* Yin & Wang, 1984, *O. gibbifera* Tong & Li, 2008, *O. media* Song & Xu, 1984, *O. plumula* Yin & Wang, 1984 and *O. sauteri* Brignoli, 1974. Two of those species (*O. cornuta* Yin & Wang, 1984 and *O. gibbifera* Tong & Li, 2008) were recorded from Hainan Island (Song *et al.* 2002; Tong & Li 2008) and are diagnosed and illustrated in the present paper. During surveys on Hainan Island in 2007, four new species (*O. diaoluoshan* **sp. nov.**, *O. furcula* **sp. nov.**, *O. sanya* **sp. nov.** and *O. vitrispina* **sp. nov.**) and one newly recorded species (*O. sauteri* Brignoli, 1974) of the genus *Opopaea* were collected and are described in this paper. The total number of *Opopaea* species in this area is now seven.

### Material and methods

The specimens were examined using an Olympus SZX16 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 made with an Olympus E-410 zoom digital camera (10 megapixels)