



First described *Patu* spiders (Araneae, Symphytognathidae) from Asia

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Abstract

Five new species of the spider family Symphytognathidae (Araneae) are described and illustrated from southern China: *Patu bicorniventris* **spec. nov.**, *P. nigeri* **spec. nov.**, *P. quadriventris* **spec. nov.**, *P. shiluensis* **spec. nov.** and *P. spinathoraxi* **spec. nov.** These spiders were collected in the leaf litter and tree canopy of tropical rainforests by sieving and fogging. The genus *Patu* Marples, 1951, known from Colombia, Hispaniola, Oceania, and African Seychelles Islands, except that web structure and web-building behavior of undescribed *Patu* species were reported before, is described from Asia for the first time.

Key words: Taxonomy, Symphytognathids, new species, tropical rainforest, China

Introduction

Symphytognathids are subminiature in body size (about 1 mm or less), three-clawed, entelegyne and lungless spiders with four or six eyes in diads or triads. They are cryptozoic spiders usually found in the litter layer of forests and some species inhabit dark caves. The family Symphytognathidae contains the smallest spiders in the world. The males of *Patu digua*, described from Colombia (Forster & Platnick, 1977), have a length of 0.37 mm. Baert & Jocqué (1993) described a tiny Symphytognathid spider from Ivory Coast, *Anapistula caecula*, which is known only from females and is even smaller than *P. digua*.

The family Symphytognathidae was established by Hickman (1931). Forster and Platnick (1977) redefined the family and suggested that numerous species remain to be discovered. According to Platnick (2009) and Hormiga *et al.* (2007), the family Symphytognathidae includes 6 genera and 45 species, mostly occur in the tropics of Central and South America, Oceania and Africa. Three symphytognathids species were reported from Asia: *Anapistula ishikawai* Ono, 2002 from Japan, *A. appendix* Tong & Li, 2006 from southern China, and *A. jerai* Harvey, 1998 from Malaysia. *Patu* occurs in Colombia, Oceania and Seychelles Islands of Africa. An undescribed *Patu* species was reported from Japan on its web structure and web-building behavior (Hiramatsu & Shinkai, 1993; Ono, 1996). The egg-guarding behavior of another *Patu* species was reported from the Gaoligongshan montane forests of western Yunnan, China (Griswold & Yan, 2003).

Although the distribution range of Symphytognathidae covers the tropics of the northern and southern hemisphere, the genus *Patu* has not been described from Asian region. In the present paper we provided the description of five Asian species of the genus *Patu* based on specimens recently collected in the tropics of southern China.

Materials and methods

Specimens were examined using a Leica M205 C stereomicroscope. Further details were studied under an Olympus BX51 compound microscope. All drawings were made using a drawing apparatus attached to