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Morphological and molecular taxonomic analysis of *Pseudopoda* Jäger, 2000 (Araneae: Sparassidae: Heteropodinae) in Sichuan Province, China

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Abstract

The genus *Pseudopoda* Jäger, 2000 is revised from material collected in Sichuan province. A molecular analysis shows the utility of DNA markers to support taxonomic hypotheses in Sparassidae.

Two new species are described: *Pseudopoda coenobium* **spec. nov.** from Emeishan (male, female) and *Pseudopoda wu* **spec. nov.** from Lugu Lake at the border to Yunnan (male, female). The latter species exhibits a unique reduction of the conductor and a strongly developed embolus. The female of *Pseudopoda virgata* (Fox, 1936) is described for the first time, the male is redescribed, the known range of the geographical distribution is considerably extended to the East (Baoxing and Tienqiang County), the vertical distribution range is extended from 300 m to slightly more than 2000 m. The male of *Pseudopoda signata* Jäger, 2001 is described for the first time, the female is redescribed, the known distribution range of this species is extended from Muge Cuo Lake over Kangding town to the valleys of Paomashan, Gonggashan and Yanzi. It shows a strong morphological variation, which may be interpreted as developing subspecies status in different valleys. However, according to results from a molecular analysis it is clearly considered intraspecific variability. Three further species are recorded from Sichuan: *Pseudopoda emei* Zhang *et al*., 2013, *Pseudopoda* sp. cf. *yunnanensis* (Yang & Hu, 2001) and *Pseudopoda rivicola* Jäger and Vedel, 2007.

Key words: Huntsman spiders, intraspecific variability, phylogeny, biogeography, taxonomy, systematics

Introduction

The genus *Pseudopoda* Jäger, 2000 was described 15 years ago for one Indian species, *Heteropoda prompta* (O. Pickard-Cambridge, 1885). Today, 109 species are known from Pakistan in the West to Japan in the East and from Korea in the North to Sumatra in the South (World Spider Catalog 2015). For an account of relevant publications see list under *Pseudopoda* in the taxonomy section. All species seem to need a certain degree of humidity, live mostly in the leaf litter or in similar habitats close to the ground. In higher elevations (> 3800 m) without leaf litter producing shrubs or trees no *Pseudopoda* species have been found. According to Jäger (2001) *Pseudopoda* species show a strong altitudinal differentiation, which explains partly the sometimes local high diversity on a specific level. Another reason for this diversity may be an inability to balloon, which would explain the existence of so many small range endemics within the genus. Similarly to the overwhelming diversity of Coelotinae in their mountainous habitats in South, East and north-western parts of Southeast Asia (World Spider Catalog 2015), the real number of *Pseudopoda* species is considered much higher than the number of formally described species. Currently 48 species are known from China, among them 30 from Yunnan, six from Sichuan, two each from Hainan, Hunan, Taiwan, and Tibet as well as one each from Guizhou, Jiangxi, Chongqing, Shaanxi, and Zhejiang. In the present paper, we report mainly on material collected during two expeditions to Sichuan in 1999 and 2004. Two new species are described, the previously unknown sex is described for further two species, and distribution maps are given for all. Nine species are now recorded from Sichuan, 31 from Yunnan. Among the new species the first *Pseudopoda* species with almost entirely reduced male conductor is recognised. A molecular analysis is conducted to test species hypotheses and boundaries.

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