



## Records of Pauropoda (Pauropodidae, Brachypauropodidae, Eurypauropodidae, Sphaeropauropodidae) from China, with a key to the species and descriptions of three new species of *Decapauropus*

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### Abstract

The arthropod class Pauropoda was not recognized from China until 1988, but currently 36 known species are now recorded from 27 sites in 18 provinces. This paper contains descriptions of three new species of *Decapauropus* Remy, 1931: *D. biclavula* sp. n., *D. annulcordatus* sp. n. and *D. tribulosus* sp. n. from Jiangsu, Hunan, Jiangxi and Guangxi Provinces, respectively. These three new species bring the known pauropod fauna of China to 39 species in 11 genera and four families. In addition, *Dasongiuis* (Sun & Guo, 2010) nom. nov. is proposed to replace the invalid junior homonym of *Songiuis* Sun & Guo, 2010.

**Key words:** Pauropoda, soil zoology, new species, taxonomy, China

### Introduction

The class Pauropoda is an ancestral edaphic arthropod group assigned to the monophyletic Progoneata of the subphylum Myriapoda (Boudreaux, 1979; Edgecombe et al., 2000; Riger and Shultz, 2001; Brusca and Brusca 2003; Gai et al., 2006; 2008; Bäcker et al., 2008; Dong et al., 2012). Pauropoda appears to be an old group, but the fossil record is very scant and restricted to specimens from Baltic amber, *Eopauropus balticus* Scheller & Wunderlich, 2001. Pauropoda consists of two orders, 12 families, 50 genera and 923 species worldwide (Scheller 2008, 2011a, b, 2013a, b, 2014; Shen 2007; Guo 2010a, b; Qian 2013a, 2014). However, Pauropoda have attracted limited attention and remains poorly known in most countries of Asia. The first records from China were published by Zhang and Chen (1988). They found seven species in eastern Zhejiang Province and southern Tibet; four were new species and one was a new record of Pauropodidae, while the other two were unidentified members of Eurypauropodidae and Sphaeropauropodidae. For nearly two decades, no other investigations of Chinese pauropods were conducted (Zhang & Wang, 1992; Stoev, Li, Meng, 2014). However, in the past 10 years, field investigations and specimen collections for Pauropoda have been conducted in 16 provinces (26 sampling sites). Recently we found three new species in Jiangsu, Hunan, Jiangxi and Guangxi Provinces and recorded 28 previously described species along with one unidentified species. Combined with the reports of Scheller (2014) and Zhang & Chen (1988), we now know of 39 species in 11 genera and four families from 30 sampling sites in 18 provinces (Table 1). Of the four families, Pauropodidae is the most widely distributed and species-rich family in China, with six genera and 33 species in all climatic regions. The families Eurypauropodidae, Brachypauropodidae and Sphaeropauropodidae are distributed sporadically, with only one or two species currently known from China.