



Two new species of *Homidia* (Collembola, Entomobryidae) and a key to species in the genus from Zhejiang Province, China

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Abstract

Two new species of *Homidia* are described from Yandang Mountain, China: *H. yandangensis* sp. nov. and *H. quadrimaculata* sp. nov. The new species are diagnosed by their unique colour patterns, the number of macrochaetae on areas A8–10 of abdominal segment IV, the relative position of specialised microchaetae/specialised ordinary chaetae on abdominal segment I and specialised ordinary chaetae/macrochaeta m3 on abdominal segment V. Specimens from two localities of *H. yandangensis* sp. nov. differ in the macrochaeta a5 on area A9 of abdominal segment IV. Descriptions of the subadult dorsal thoracic and abdominal chaetotaxy of *H. yandangensis* sp. nov. and a key to species of *Homidia* from Zhejiang Province are provided here.

Key words: springtail, subadult, chaetotaxy

Introduction

Homidia, was established by Börner (1906) as a subgenus of *Entomobrya* Rondani, 1861 based on type species *Homidia cingula* Börner, 1906, was raised to generic level by Denis (1929), and is a dominant entomobryid genus in China (Pan *et al.* 2015). It is identified by the presence of dental spines, “eyebrow-like” macrochaetae on anterior part of abdominal segment IV in adults, the absence of body scales, 8+8 eyes and the subapical mucronal tooth larger than apical tooth (Börner 1906; Szeptycki 1973). Worldwide 62 species of this genus have been described (Bellinger *et al.* 1996–2015).

Colour patterns is often a useful morphological character for species identification in the Entomobryidae (Soto-Adames 2002, 2010; Mateos 2008), as have been shown for the genus *Homidia* (Szeptycki, 1973; Pan *et al.* 2015). Species of *Homidia* have numerous different colour patterns so stable colour pattern divergence can be used for species identification. In the present paper, we have relied on colour pattern as a major character for recognising *Homidia* spp from Zhejiang Province, and check the consistency of colour patterns for species recognition.

Zhejiang Province located in east China, has a subtropical monsoon climate, with high forest coverage and is mountainous. So far, 12 species of *Homidia* have been found from Zhejiang Province: *Homidia formosana* Uchida, 1943; *Homidia hexaseta* Pan *et al.* 2011a; *Homidia jordanai* Pan *et al.* 2011b; *Homidia latifolia* Chen & Li, 1999; *Homidia phjongjiangica* Szeptycki, 1973*; *Homidia sauteri* Börner, 1909*; *Homidia similis* Szeptycki, 1973*, *Homidia sinensis* Denis, 1929*; *Homidia socia* Denis, 1929*; *Homidia tiantaiensis* Chen & Lin, 1998; *Homidia unichaeta* Pan *et al.* 2010; *Homidia zhangii* Pan & Shi, 2012 (*author’s records). We describe and illustrate two new species from Yandang Mountain, Wenzhou City, here, and a key to species from Zhejiang Province also is provided.

Material and methods

Specimens were sieved from leaf litter onto a tray and collected using an aspirator as well as separated using