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Three new species of *Coecobrya* (Collembola: Entomobryidae) from southern and northwest China

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Abstract

Three new species of *Coecobrya* are described from southern and northwest China. *C. draconis* **sp. nov.** from Guangxi cave shows some troglomorphic features, such as the inner ungual teeth inserted basally. *C. xui* **sp. nov.** is similar to *C. huangi* and differs from the latter by head and tergal chaetotaxy. *C. qin* **sp. nov.** is the second member of the genus with 3+3 eyes, but cannot be assigned to either the *tenebricosa*- or *boneti*-groups because it has eyes and a large outer tooth on unguiculus.

Key words: taxonomy, cave, eyed species, chaetotaxy

Introduction

The worldwide genus *Coecobrya* was re-diagnosed by Zhang *et al.* (2009) and divided into *tenebricosa*- and *boneti*-groups (Zhang *et al.*, 2011a). *Coecobrya* species have plurichaetotic chaetotaxy, no labral papillae, inverted intrusion on labral margin U-shaped, labial chaetae MELL always smooth, reduced eye number (0 to 3 ocelli per side), pigment reduced or absent, antennal apical bulb absent, falcate mucro with a basal spine, tenaculum with 4+4 teeth and one large striate chaeta, and scales and dental spines absent. About 1/5 (9/44) species are known from China: *tenebricosa* (Folsom, 1902), *communis* Chen & Christiansen, 1997, *huangi* Chen & Christiansen, 1997, *oligoseta* Chen & Christiansen, 1997, *tebetensis* Chen & Christiansen, 1997, *liui* Wang, Chen & Christiansen, 2002, *brevis* Xu, Yu & Zhang, 2012, *pani* Xu, Yu & Zhang, 2012. Here, three new species of the genus are described from southern and northwest China.

Material and methods

Specimens were mounted in Marc André II solution after clearing in lactic acid and were studied using a Nikon E600 and SMZ-1000 microscope. Photographs were enhanced with Photoshop CS2/PC (Adobe Inc.). The Ant. III organ is described after Chen & Christiansen (1993). Dorsal body chaetae are designated following Szeptycki (1979) and Zhang *et al*. (2011b). The number of macrochaetae is given by half-tergite in the descriptions. Types are deposited in the collections of the Department of Entomology, College of Plant Protection, Nanjing Agricultural University (NJAU), P. R. China.

Abbreviations: Th.I–III—thoracic segment I–III; Abd.I–VI—abdominal segment I–VI; Ant.I–IV—antennal segment I–IV; mac—macrochaeta, -ae; mic—microchaeta, -ae; S—antennal sensillum, -a; ms—microsensillum, -a; s-chaeta, -ae—ordinary sensory chaeta, -ae on head and body.

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