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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