



A new cave *Sinella* species from South China (Collembola: Entomobryidae)

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Abstract

Sinella whitteni sp. nov., a new cave species from South China is described. It is characterized by inner differentiated tibiotarsal chaetae ciliated, 2 inner small basal unguual teeth, serrate outer edge of the unguiculus, short smooth distal part of dens, presence of m1i and p4 on Th. II and 5 + 5 macrochaetae on central Abd. IV. The complete s-chaetotaxy is reported in the genus *Sinella* for the first time. It is most close to another cave species *S. trogla* Chen & Christiansen, 1993, from which it differs in short mucronal spine, presence of m1i, m2i2, p4 and absence of m4i on Th. II, absence of unpaired tooth on unguis, and absence of large finely ciliated chaetae on manubrium.

Key words: new species, *Sinella whitteni*, chaetotaxy, Guangxi, troglobites

Introduction

Brook (1882) established the genus *Sinella* for *S. curviseta* Brook, 1882, a worldwide spread species. Yosii (1956) erected *Coecobrya* as a subgenus of *Sinella* for *Sinella (Coecobrya) akiyoshiana* Yosii, 1956 from Japan. It was upgraded to generic level on the ground of its falcate mucro (bidentate in *Sinella*) by Deharveng (1990); Chen & Christiansen (1993) maintained their subgeneric level. Because falcate versus bidentate mucro is always considered as a generic or suprageneric character in Entomobryidae, we consider *Coecobrya* as a separate genus, following Deharveng (1990).

So far, 16 *Sinella* species have been recorded from China; four of them, *S. fuyanensis* Chen & Christiansen, 1993, *S. insolens* Chen & Christiansen, 1993, *S. sineocula* Chen & Christiansen, 1993 and *S. trogla* Chen & Christiansen, 1993 are troglobitic.

In the course of work on the Guangxi Nature Reserves Management Project executed by the Guangxi Forestry Bureau and implemented by the World Bank for the Global Environment Facility, a number of caves were recently sampled in Guangxi province, mainly in Mulun and Yachang Nature Reserves. A rich material of various taxa was collected, including several new cave Collembolan taxa. A new species of *Sinella* is described here, with its complete s-chaetotaxy, from a cave of Yachang.

Material and methods

Specimens, including both adult and young individuals, were mounted under a coverslip in Marc-André II solution, and were studied using a Leica DMLB microscope. Photograph was taken with a Leica MZ 16 stereomicroscope using a mounted Jenoptik ProgRes C10plus camera.