



A new species of the genus *Crossodonthina* (Collembola: Neanuridae: Lobellini) from China

YONGZHENG LUO¹ & JIAN-XIU CHEN^{1,2}

¹School of Life Science, Nanjing University, Nanjing 210093, P. R. China. E-mail: luoyz001@163.com

²Corresponding author. E-mail: chenjx@nju.edu.cn

Abstract

The genus *Crossodonthina* Yosii, 1954 is briefly introduced and a new Chinese species, *Crossodonthina bidentata*, from Zhejiang Province, is described in the present paper. It is distinguished from all known members of the genus by two unique characters: tubercles Di fused on Abd. V and the unique structure of the mandibles and maxillae. Its labral chaetotaxy (2/5, 2), setae on furcular remnant and morphology of macrosetae (M) are also unusual for the genus. It is similar to the Chinese species, *C. montana* Lee & Kim, 1990 and *C. hainana* Xiong *et al.*, 2005, in having 2+2 eyes, 8 sensory setae on Ant. IV, 1 inner tooth on unguis, 4+4 setae on ventral tube and in the body dorsal chaetotaxy. However, it differs from them in the setae on cephalic tubercles Oc, setae on furcular remnant and the morphological feature of macrosetae (M), as well as the fusion of Di tubercles on Abd. V and the structure of mandibles and maxillae. A key to world species of the genus is provided.

Key words: *Crossodonthina bidentata*, **sp. nov.**, key to species, maxilla and mandible, tubercles

Introduction

The genus *Crossodonthina* Yosii, 1954 was established for the species *C. nipponica* Yosii, 1954. It is characterized by the hypognathous head, weakly developed buccal cone, styliform maxillae and fringed mandibles. So far, twelve species of the genus have been described worldwide and only ten are probably valid, since *C. appendiculata* Yosii, 1956 was synonymised with *C. nipponica* Yosii, 1954 (Yoshii 1995) and *C. delamarei* Lee, 1973 synonymised with *C. koreana* Yosii & Lee, 1963 (Lee 1981; Kim & Lee 1995; Weiner 1997). Bellinger *et al.* (1996–2009) listed ten species, including one invalid species (*C. appendiculata*) and omitting one valid species (*C. hainana* Xiong *et al.*, 2005) for the genus. Six species have been reported from China, i.e., *C. formosana* Yosii, 1965, *C. alatoserrata* Yosii, 1965 and *C. montana* Lee & Kim, 1990 from Taiwan, *C. tridentiens* Yue & Yin, 1999 from Shanghai, *C. hainana* Xiong *et al.*, 2005 from Hainan and *C. tiantongshana* Xiong *et al.*, 2005 from Zhejiang. A new Chinese species, *Crossodonthina bidentata*, from the Tianmu Mountain in Zhejiang Province is described in the present paper.

Key to the species of the genus *Crossodonthina*

- 1 Eyes 2+2 2
- Eyes 3+3 4
- 2 Tubercles Di fused on Abd. V *C. bidentata*, **sp. nov.**
- Tubercles Di separate on Abd. V 3
- 3 Four setae on furcular remnant, mandible 3-branched with 1 basal tooth..... *C. montana*
- Six setae on furcular remnant, mandible 2-branched with 3 basal tooth..... *C. hainana*