

A taxonomic study on *Hypogastrura* Bourlet, 1839 (Collembola, Hypogastruridae) from China

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Abstract

A new species of the *Hypogastrura trybomi* group is described from Shanxi province, China. Because of the presence of prolonged maxillary lamellae and 6 setae on the dens, *H. manghe* sp. nov. resembles *H. hexasetata* Jiang & Yin, 2010. *H. yosii* Stach, 1964, equal to *H. sheyangensis* Jiang, Tang & Chen, 2010, is redescribed based on syntypes. The latter species was recognized as a junior synonym of the former. A key to the Chinese *Hypogastrura* Bourlet, 1839 species is also given.

Key words: springtails, *H. manghe* sp. nov., *H. yosii*, *H. sheyangensis*, redescription, synonymy

Introduction

Hypogastrura Bourlet, 1839 is a large collembolan genus comprising 165 hemiedaphic species (Bellinger *et al.* 2011). Most of them live in the Holarctic, more than 60 were recorded from Asia (Babenko *et al.* 1994, Thibaud *et al.* 2004, Bellinger *et al.* 2011) and only 9 from China (Jiang & Yin 2010, Jiang *et al.* 2011). Among them only one species—*H. distincta* Axelson, 1902 is widely distributed, *H. gracilis* (Folsom, 1899) is known from Japan, Korea and China, remaining ones e.g. *H. heptasetata* Jiang & Yin, 2010, *H. hexasetata* Jiang & Yin, 2010, *H. quadrinotata* Jiang & Chen, 2008, *H. verruculata* Rusek, 1967, *H. sheyangensis* Jiang *et al.*, 2010 and *H. yosii* Stach, 1964 are known only from China. Their taxonomic status is rather unquestionable, excluding two last mentioned species of the *manubrialis* group which are close morphologically. The examination of the *H. yosii* and *H. sheyangensis* types showed that both species are identical and consequently the later was recognized as a junior synonym of the former species. The aim of this work was to redescribe *H. yosii*, describe a new *Hypogastrura* species from the Taihang Mountains (China) and to give a key to Chinese *Hypogastrura*.

Material and methods

The specimens of *Hypogastrura manghe* sp. nov. and one *H. yosii* were cleared in Nesbitt's fluid (chloral hydrate, concentrated hydrochloric acid, distilled water), subsequently mounted on slides in arabic gum solution (Swan's fluid: distilled water, arabic gum, glycerol, chloral hydrate), and studied using a Nikon Eclipse E600 phase contrast microscope. Figures were drawn with the camera lucida. The terminology for the description follows that given in Fjellberg (1984, 1999), Babenko *et al.* (1994), and Thibaud *et al.* (2004).

Abbreviations used: ant. I–IV—antennal segments I–IV, th. I–III—thoracic terga I–III, abd. I–VI—abdominal terga I–VI.