



Redescription of *Hypogastrura gracilis*, synonymy of *Ceratophysella quinidentis* with *C. duplicispinosa*, and additional information on *C. adexilis* (Collembola: Hypogastruridae)

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Abstract

Hypogastrura gracilis Folsom is redescribed from cotypes and Chinese specimens, and a lectotype and 4 paralectotypes are designated. Specimens referable to *Ceratophysella adexilis* Stach are described. *Ceratophysella quinidentis* (Jia, Shi & Chen) is reevaluated from type specimens and recognized as a new junior synonym of *C. duplicispinosa* (Yosii).

Key words: *Ceratophysella* cf. *adexilis*, taxonomy

Introduction

Many of the world's species of Hypogastruridae were described well before the systematic importance of mouthpart morphology, chaetotaxy, and sensilla arrangement was adequately appreciated. Numerous Asian species described 40 or more years ago are difficult to recognize because the original descriptions are very incomplete compared with current standards, which has led to descriptions of synonymous taxa or to the outright inability to confidently identify even common, widespread species. The objective of this paper is to clarify three of these problematic taxa. *Hypogastrura gracilis* Folsom (1899), described from Japan, is redescribed from a type specimen and compared with other Asian reports and with Chinese specimens. Specimens referable to *Ceratophysella adexilis* Stach, 1964, already known from China, are described from Nanjing City. Type material of *Chinogastrura quinidentis* Jia, Shi & Chen, 2005 was examined to determine its similarity to *Ceratophysella duplicispinosa* (Yosii, 1954), which is known from Japan, China, Korea, and the Russian Far East. Assignment of chaetotaxy types (A or B) in *Ceratophysella* spp. follows Gisin (1947) and Fjellberg (1998). Clavate tenent hair designations follow Deharveng (1983). Antennal segments are abbreviated Ant. I–IV. Thoracic and abdominal segments are abbreviated Th. I–III and Abd. I–VI. Fore, middle and hind legs are abbreviated as legs I–III.

Taxonomy

Hypogastrura gracilis (Folsom, 1899)

Figs 1–3

Achorutes gracilis Folsom, 1899: 263

Type material. Female lectotype (on slide) and 4 paralectotypes (in alcohol), Japan, Yanaka, Tokyo, Japan, 14 November 1894, deposited in the Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, USA.