Two new species of the tribe Oligaphorurini Bagnall, 1949 (Collembola: Onychiuridae) from northeast China

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Abstract

Two new species of the tribe Oligaphorurini are described from northeast China: Dimorphaphorura jingyueensis sp. nov. and Oligaphorura chankaensis sp. nov. Dimorphaphorura jingyueensis sp. nov. is similar to Dimorphaphorura pseudoraxensis (Nosek & Christian, 1983) in having 1+1, 3+3, and 3+3 pso on Th. I–III, respectively. Both species can be distinguished by the number of pso on Abd. IV–V, the ratio of unguiculus/unguis, the inner basal lamella of the unguiculus, the number of chaetae in distal whorl of the tibiotarsi and of the apical teeth on mandible. Oligaphorura chankaensis sp. nov. is similar to the species O. montana Weiner, 1994 and O. pseudomontana Sun & Wu, 2012 in the same number of pso on the dorsal side of head and Th. I–Th. III terga (43/144), ventral pso formula (11/000/00000) and pso on subcoxa 1 of legs I–III (1, 1, 1). But the new species can be separated from them by the number of pso on abdominal terga, the ventral psx formula, the labial type, the number of chaetae on tibiotarsi I–III and the ratio of AS/unguis.

Key words: Taxonomy, Dimorphaphorura, Oligaphorura, China

Introduction

The tribe Oligaphorurini was established by Bagnall (1949) as being characterized by a small postantennal organ with a 3–5-lobed vesicle. Among 44 species of the tribe so far known in the world, six have been reported from China (Bellinger et al. 2012, Shvejonkova & Potapov 2011, Sun & Wu 2012a, Sun & Wu 2012b). A checklist of the Chinese Oligaphorurini has been given elsewhere (Sun & Wu 2012b).

Prompted by the discovery of further two new Oligaphorurini species from northeastern China, below we provide their descriptions.

Material and methods

Specimens were mounted in Hoyer’s solution after clearing in lactic acid, and were studied using a Nikon Eclipse 80i microscope. Material is deposited in the collection of the Key Laboratory of Wetland Ecology and Environment, Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences, Changchun.


The pseudocelli, parapseudocelli and pseudopore formulae are the number of pseudocelli, parapseudocelli or pseudopores by half-tergum (dorsally) or half-sternum (ventrally). The S-chaetae formula is the number of S-chaetae by half-tergum from head to Abd. VI (for instance: 11/011/222111).

The tibiotarsus chaetotaxy formula: total number of chaetae (number of chaetae in distal row A+T, number of chaetae in row B, number of basal chaetae), for instance: 20 (11, 8, 1).