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Description of the *octopunctata*-group species of *Protaphorura* from China (Collembola: Onychiuridae)

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Abstract

Protaphorura species of the *octopunctata*-group are recorded in China for the first time. Two new species, *Protaphorura jiamusiensis* **sp. nov.** and *Protaphorura maoerensis* **sp. nov.**, and one species new to China, *Protaphorura nutak*, are reported. *Protaphorura jiamusiensis* **sp. nov.** is diagnosed mainly by the formula of pso on the body and subcoxae 1, the psx formula, the ratio of M/sp on Abd. V and the number of chaetae on Th. I–III sterna between the legs. *Protaphorura maoerensis* **sp. nov.** is similar to *P. mongolica* and *P. sakatoi*, but it can be easily distinguished from them by the dorsal pso formula.

Key words: Taxonomy, northeast, new species, new record

Introduction

The *Protaphorura* species of *octopunctata*-group was erected by Pomorski and Kaprus' (2007) for the species with four and more pseudocelli at antennal base. Later, they gave a review to all known Palearctic species of the group, including 25 species (Kaprus' & Pomorski 2008). Until now, none of them were recorded from China. In the present paper, two new species, *Protaphorura jiamusiensis* **sp. nov.** and *Protaphorura maoerensis* **sp. nov.**, are described from northeast China, and one species new to China, *Protaphorura nutak* (Yosii, 1972), is mentioned.

Material and methods

Specimens were collected by Berlese extraction, cleared in lactic acid and then mounted in Marc André II solution. They were studied using a Nikon Eclipse 80i microscope. The material is deposited in the Key Laboratory of Wetland Ecology and Environment, Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences, Changchun.

Labial types are named after Fjellberg (1999). Labium areas and chaetal nomenclature follow Massoud (1967) and D'Haese (2003). Chaetae on anal valves are named following Yoshii (1996). Chaetae on the furcal area are classified in accordance with Weiner (1996).

Abbreviations used in descriptions:

Ant.—antennal segments, PAO—postantennal organ, Th.—thoracic segments, Abd.—abdominal segments, p-chaeta—chaeta of row p, ms—microsensillum, pso—pseudocellus, psx—parapseudocellus, psp—pseudopore, ^m—unpaired pseudopore or parapseudocellus, AS—anal spines, M—submedial posterior macrochaeta on Abd. V tergum, sp—posterior s-chaeta on Abd. V tergum, s'—additional microchaeta on Abd. I–III and Abd. V terga, set above the submedial pso.