New Nipponentomon species from northern Asia
(Protura: Acerentomata, Nipponentomidae)

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Abstract

Nipponentomon imadatei sp. nov. from Northeast China and Nipponentomon taiga sp. nov. from Siberia, Russia are described. Nipponentomon heterothrixi Yin & Xie is redescribed based on type materials and lectotype and paralectotypes are designed for the species. Nipponentomon bidentatum and N. nippon are reported for the first time from China. Nipponentomon imadatei sp. nov. is characterized by a short labrum, absence of seta P1a on tergite VII and presence of three A-setae on sternites IV–VI. It is similar to N. jaceki from the Russian Far East, but differs in the shape of the comb, shape of seta β1 on the foretarsus, length of sensillum e on the foretarsus, and in chaetotaxy on tergite I and sternites IV–VI. Nipponentomon taiga sp. nov. is characterized by a short labrum, presence of seta P2a’ on nota, seta P0a on tergite I, seta P1a on tergites I–VII, and absence of seta P3a on tergites II–VII. It is similar to N. heterothrixi, but differs in absence of seta d6 on the head, shape of accessory setae on tergites VI and VII, long and setiform seta β1, and shorter sensilla e, g, a’ and c’ on the foretarsus than in sensilla in N. heterothrixi and in the porotaxy. A key for the world species of the genus is provided and the porotaxy of five species is reported in detail.

Key words: chaetotaxy, key, new records, northeastern China, porotaxy, Siberia, taxonomy

Introduction

The genus Nipponentomon Imadaté & Yosii, 1959 is a group of Protura mainly occurring in Palearctic regions, with 14 species and one subspecies described from Northeast China, Japan, Korea, USA, Canada and Russia (Far East) (Bernard & Biechele 2008, Imadaté 1974, Nakamura 2004, Shrubovych 2009, Szeptycki 2007, Yin 1999). It is characterized by the mesonotum and metanotum having three (A2, A3 and A4) and four (A1, A2, A3 and A4) pairs of anterior setae, respectively, filiform sensillum t1 on foretarsus, sensillum b’ absent, base of sensillum a’ distal to r2, calyx of maxillary gland with lateral racemose appendices and a helmet-like dorsal appendix, well-developed striate band on abdominal segments VIII, and rectangular comb with long teeth.

The Protura fauna of Northeast China has been studied by Bu & Wu (2012), Bu & Xie (2006, 2007), Wu & Yin (2007, 2008a, 2008b, 2008c, 2011) and Yin (1999), and about 30 species have been recorded. Two species of Nipponentomon are presently recorded from China (Yin 1999), N. uenoi paucisetosum Imadaté, 1965 and N. heterothrixi Yin & Xie, 1993. In recent years, we have collected in this region intensively and obtained many proturan specimens. One new species and two new records of Nipponentomon were found in this material and are described in the present paper.