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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 heterothrxi* 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 $\beta 1$ 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. heterothrxi*, but differs in absence of seta *d6* on the head, shape of accessory setae on tergites VI and VII, long and setiform seta $\beta 1$, and shorter sensilla *c*, *e*, *g*, *a'* and *c'* on the foretarsus than in sensilla in *N. heterothrxi* 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 *t2*, 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. heterothrxi* 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.

The Protura fauna of Siberia is poorly known, with only 16 species currently recorded (Shrubovych & Bernard 2012, Shrubovych *et al.* 2012, Shrubovych & Rusek 2010, Szeptycki 1988). The present paper contains the description of a new species of *Nipponentomon* from Siberia.