



Taxonomic study on the family Nippobodidae (Acari: Oribatida) from China

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Abstract

Five new species of Nippobodidae from China: *Leobodes carinatus* sp. nov., *L. praeconcavus* sp. nov., *Nippobodes flagellifer* sp. nov., *N. peniculatus* sp. nov., and *N. pseudobrevisetiger* sp. nov., are proposed and described on the basis of adults, and *Nippobodes tamlaensis* Choi, 1996 is newly recorded for China. A revised diagnosis of the family is provided. *Leobodes monstrosus* Jeleva et Vu, 1987 is transferred to the genus *Nippobodes* Aoki, 1959. A key to the 17 species of Nippobodidae known worldwide is presented.

Key words: taxonomy, mites, Acari, Oribatida, Nippobodidae, China

Introduction

In 1959, Aoki proposed the genus *Nippobodes* with *Nippobodes insolitus* Aoki, 1959 from Japan as type species. Although he compared this genus with *Tetracondyla*, placed in the family Oppiidae in the same paper, Aoki regarded *Nippobodes* as a member of the family Carabodidae without explanation.

In 1961, Aoki moved *Nippobodes* from Carabodidae to the newly erected family Nippobodidae as type genus, and gave the diagnosis of Nippobodidae.

Leobodes, the second genus of Nippobodidae, was proposed by Aoki in 1965 with the type species, *Leobodes mirabilis* Aoki, 1965 from Thailand. With the finding of *Leobodes*, Aoki (1965a) revised the diagnosis of the family.

Subsequently, a further six species of *Nippobodes* and four of *Leobodes* were described by Aoki (1965b, 1970, 1981, 1984, 1989, 2000), Jeleva & Vu (1987), and Choi (1996) from China, Japan, Korea, Vietnam, and Himalaya district.

Chu & Aoki (1997) recorded *Nippobodes insolitus* Aoki, 1959 from Fu-Shan in Taiwan, which was the first report of this family in China. In 2000, Wang, Cui & Liu described this species from Fujian. Based on a specimen collected from Xizang, Wang, Hu & Yin (2000) mentioned *Leobodes mirabilis* Aoki, 1965 in their paper on the Chinese oribatid fauna. After reexamining this specimen, we found it was misidentified and will describe it as a new species herein. In 2000, Aoki described two new species of *Leobodes*: *L. lijiangensis* and *L. yinae* from Yunnan, China.

While examining specimens collected from southern and eastern parts of China, we found another five undescribed species of Nippobodidae and one newly recorded species for China. To date, a total of 17 species are known in the family Nippobodidae, among these, nine species are known for China. The purpose of this paper is to give a checklist of species in Nippobodidae, and discuss the placement of *Leobodes monstrosus* Jeleva et Vu, 1987, to revise the diagnosis of the family based on new knowledge, to describe new and newly recorded species from China, and to provide a key to all known species of the family Nippobodidae.