



## A new species of the genus *Stachorutes* Dallai, 1973 from China (Collembola, Neanuridae)

The genus *Stachorutes* of the subfamily Pseudachorutinae was established by Dallai (1973) based on the type species *Stachorutes dematteisi* by the character of reduced number of eyes. Thibaud and Palacios-Vargas (2000) redefined the genus as below: Small species with the appearance of *Pseudachorutes*; antennal segment IV with simple apical bulb, 5 or 6 thick cylindrical sensilla and one microsensillum; mandible with 2–3 large teeth; maxilla simple, styletiform; eyes less than 8+8; postantennal organ with 4 to 11 vesicles, never moruliform; tibiotarsi without clear clavate tenent hairs; unguis without teeth and unguiculus; ventral tube with 4+4 setae; sensillar formula of the body 022/11111; tenaculum with 2 or 3 teeth; furcula reduced; dens with 3 to 6 setae; mucro absent or very small, fused to dens; anal spines absent.

The genus *Stachorutes* Dallai includes 16 species distributed all around the world (Simón et al., 2005), but according to Smolis & Shvejonkova (2006) *S. ashrafi* Yosii, 1966 should be placed in the genus *Furculanurida* Massoud, 1967. Only *S. jizuensis* has been recorded in China (Yunnan Province, Southwest China, Tamura & Zhao, 1997).

During our ongoing study on the diversity and systematic evolution of Chinese basal Hexapoda supported by National Natural Sciences Foundation of China (No. 30570210), a new species of Collembola has been recognized with the following characters: 5+5 ocelli, postantennal organ with 9 vesicles, unguiculus and anal spines absent, exceptionally elongated buccal cone, and dens with 6 setae. The combination of characters places it within the genus *Stachorutes* Dallai, 1973 (Thibaud & Palacios Vargas 2000, Smolis & Shvejonkova, 2006). It was found in Cuihua Mountain, Shaanxi Province, northwest China. Its description is presented below.

### *Stachorutes cuihuaensis* sp. nov.

Figs 1–12

**Type material.** Holotype: female on slide, northwest China, Shaanxi Province, Cuihua Mountain, 1400 m a.s.l., litter-rich soil in forest, 8/6/2006, coll. Yun-Xia Luan, Yun Bu and Yan Gao. Paratypes: 3 females and 2 males on slides, the same data as holotype. Type material is deposited at the Insect Specimen Gallery, Institute of Plant Physiology and Ecology, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences.

**Description.** Habitus typical of the genus *Stachorutes* Dallai, 1973 (Fig. 1). Body length (without antennae) 600–850µm (holotype: 720µm). Colour of the body grey, eyes dark. Cuticular granulation fine, homogenous.

Antennae length 120µm in holotype, shorter than head, cephalic diagonal length 220µm. Antennal segment I with 7 setae; antennal segment II with 12 setae; Antennal segments III and IV fused dorsally; length ratio of antennal segment I: II: II+IV as 1: 1.1: 2.8. Antennal III-organ with two small internal curved sensilla and two larger guard sensilla (Figs 2–3). There has one microsensillum beside the ventral guard sensilla (Fig. 3). Antennal segment IV with large simple apical bulb, seta i and 6 cylindrical sensilla (Fig. 2). Ventral chaetotaxy of antennal segment IV as in Fig. 3.

Postantennal organ elliptical, composed of 9 simple vesicles, 2.7 times larger than ocelli (Fig. 4). Eyes consist of 5+5 small ocelli (Fig. 4), about as large as skin granules, hard to detect. Buccal cone exceptionally elongated (labrum not clearly visible). Mandible with three teeth, maxilla styliform (Fig. 5). Labium with 4+4 distal and 8+8 proximal setae, setae L absent (Fig. 6).

Dorsal chaetotaxy as in Fig. 1. Seta a0 on the head present, unpaired seta d1 present. Thoracic tergum I with 3+3 setae. Setae a2 absent on the thoracic terga II and III. Setae s (setae sensuales) on the body in position of p3 and m7 on the thoracic terga II and III, p4 on abdominal terga I to IV and p2 on abdominal tergum V. Sensorial formula of the body: 022/11111. Setae s more than twice longer than ordinary setae. Thoracic sterna without setae, ventral tube with 4+4 setae (Fig. 7).

Furcula present, length 45µm. Manubrium length 13µm. Dens length 24 µm, with 6 setae. Mucro 3 times shorter than dens, triangular in shape (Fig. 8). Tenaculum with 3+3 teeth (Fig. 9). Genital apertures of female with 9 setae (Fig. 10) and male with 12 setae (Fig. 11).