



Symbiopsocus Li (Psocoptera: Psocidae), with a new species from China

LUXI LIU, FASHENG LI & ZHIQI LIU¹

Department of Entomology, China Agricultural University, Beijing 100193, China

¹Corresponding author. E-mail: zhiqiliu@cau.edu.cn

Abstract

The genus *Symbiopsocus* is reviewed and *S. furcatus* **sp. n.**, is described from China. The biogeography of 10 Chinese species is discussed briefly, and a distribution map provided. An updated key to the 13 world species is presented.

Key words: Psocoptera, Psocidae, *Symbiopsocus*, distribution, new species, key, China

Introduction

The genus *Symbiopsocus* was described by Fasheng Li (1997) based on the type species *Symbiopsocus leptocladus* from China. This genus includes 12 species, distributed in the Palaearctic, Oriental and Neotropical Regions. Nine of these species are described from mainland of China: *S. bicruris* (Li, 1990); *S. chaulommaus* Li, 2002; *S. diplocyclus* Li, 2002; *S. leptocladus* Li, 1997, *S. longicaulis* (Li, 1992); *S. quadripartitus* Li, 2002; *S. subrhombus* Li, 2002; *S. ternatus* (Li, 1992); *S. yajunae* Li, 2005. The remaining three species are: *S. formosanus* (Okamoto) from Taiwan (Okamoto, 1907; Yoshizawa, 2008), *S. hastatus* Mockford from Japan (Mockford, 2003), and *S. sturmi* (Badonnel) from Colombia (Badonnel, 1986; Li, 2002). In this paper a tenth species is described from China, *S. furcatus* **sp. n.**, with an account of the distribution of the genus in China, and an updated key to all 13 of the species in the genus.

Symbiopsocus was placed in the tribe Oreopsocini Li, 2002 (Li, 2002) because of the length of the antennae and the shape of fore wing pterostigma. In contrast, Lienhard & Smithers (2002) placed the genus in the tribe Ptyctini Mockford, 1993, and this was subsequently supported by morphological and molecular analysis (Mockford, 2003; Yoshizawa & Johnson, 2008), and Oreopsocini was regarded as a junior synonym of Ptyctini. The *Symbiopsocus* has a similar venational pattern to that of *Trichadenotecnum*, but can be distinguished by the lack of extensive spots. *Symbiopsocus* differs from other Ptyctini genera by the following characters: anterior margin of areola postica in a straight line; male hypandrium symmetrical, with several tiers of lobes, lacking a median tongue; phallosome closed, symmetrical, not expanded apically; subgenital plate with slender posterior lobe and the pigmented arms forming V-shaped pattern; ventral valve of gonapophyses with a long apical spine, outer valve with posterior lobe.

Material and methods

The specimens were examined under SZM45-B3 stereomicroscope and terminalia under Olympus CH-BI45-T microscope. Measurements (in microns) were made with a filar micrometer. Color descriptions are based on observations through the stereomicroscope with direct light on specimens preserved in 75% ethyl alcohol for various periods of time. The abdominal apex containing genitalia was cut off and heated in 10% sodium hydroxide for about 10–20 min and then transferred to an excavated slide with glycerin. After examination it was transferred to fresh glycerine and stored in a microvial with the specimen.