



Review of the genus *Keilbachia* Mohrig (Diptera: Sciaridae), with the description of eleven new species

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Abstract

Collection materials for specimens of the genus *Keilbachia* Mohrig, 1987 (Sciaridae) were studied. The following new species are described and figured: *Keilbachia acumina* sp. n. (Japan), *K. adjuncta* sp. n. (Taiwan), *K. bifida* sp. n. (Nepal), *K. brevicoxa* sp. n. (India), *K. camptospina* sp. n. (Vietnam), *K. cornuta* sp. n. (Japan), *K. criniloba* sp. n. (India), *K. inscissa* sp. n. (Nepal), *K. macripes* sp. n. (Nepal), *K. megacantha* sp. n. (Japan), and *K. trispinoides* sp. n. (India). Additionally, *Sciara neglecta* Johannsen, 1912, is combined in the genus *Keilbachia* Mohrig. New faunistic records are presented for the species *Keilbachia ferrata* (Japan, Finland, Sweden), *K. neglecta* (USA), *K. praedicata* (Taiwan) and *K. sasakawai* (Japan). All 52 species, currently included in *Keilbachia*, are listed, and a complete literature synopsis on the genus is provided.

Key words: Diptera, Sciaridae, Taiwan, Finland, India, Japan, Nepal, Sweden, USA, Vietnam, faunistics, systematics, new species, new combination, new records

Introduction

Prompted by the striking modifications found in the structure of the hypopygium, the taxonomy of the genus *Keilbachia* Mohrig, 1987, has recently been the subject of intense study (Menzel & Martens 1995, Mohrig *et al.* 1999, Vilkamaa *et al.* 2006, Hippa & Vilkamaa 2007a, 2007b, Rudzinski 2008), resulting in the description of a number of new species. This paper is a continuation of this work. The exact phylogenetic relationships of the genus still remain unresolved, although earlier analyses suggest a close relationship with *Camptochaeta* (see Hippa & Vilkamaa 1994 and Menzel & Mohrig 2000), the concept of which itself is disputed, the *C. parvula* group of species representing more probably a separate genus, possibly closely related to *Keilbachia*. Furthermore, it remains unclear, whether all species currently included in *Keilbachia* form a monophyletic unit. A phylogenetic analysis is needed to corroborate this, as well as the validity of the currently used species groupings. Therefore, no species group names are used in this paper. Here, our aim is to describe a new set of spectacular species from the Palearctic and Oriental regions (Taiwan; India, Japan, Nepal, Vietnam). We also list all species currently included in *Keilbachia* and provide a complete list of publications dealing with the genus.