



Two new species of genus *Apsilochorema* Ulmer (Trichoptera: Hydrobiosidae) from India

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Abstract

Two new species of *Apsilochorema* (Trichoptera: Hydrobiosidae) from India are described, *Apsilochorema* (*Archichorema*) *kashmirensis* **sp. nov.** and *Apsilochorema* (*Archichorema*) *meysi* **sp. nov.**, bringing to 12 the number of species in the genus known from the country.

Key words: *Apsilochorema*, Sikkim, Baderwah, Holi, new species

Introduction

The family Hydrobiosidae is poorly represented in India with only 10 species on record. It was originally established by Ulmer (1905) as a subfamily of Rhyacophilidae but Schmid (1970) elevated it to the family level. The entire family was the subject of an extensive global revision by Schmid (1989). Mey (1998) provided an explanation for the distribution pattern of genus *Apsilochorema* on the Asian continent, and in the SW Pacific region including Australia. A review of the species of *Apsilochorema* and their relationships was provided by Mey (1999). Strandberg & Johanson (2010) conducted a phylogenetic analysis of the genus *Apsilochorema* on the basis of molecular sequence data from mitochondrial (COI) and nuclear cadherin (CAD) genes. Across the globe this family is represented by 52 genera covering 410 species. However, in India the family is represented by the single genus *Apsilochorema*. The genus *Apsilochorema* contains a total of 54 species, of which 31 and 10 species are from the Oriental Region and India, respectively (Morse, 2012).

Material and methods

Specimens belonging to this genus were collected primarily during the first 1–3 hours after dusk with light traps having either mercury-vapour bulbs (with alternating current) or 22-W circline fluorescent BL tubes (Bioquip, with 12-volt, rechargeable batteries). The traps were placed near the edges of high altitude streams. The caddisfly material so collected was killed and preserved in 95% ethanol with a drop of glycerine. The genitalia were removed with fine-tipped forceps and were treated with the lactic acid procedure of Blahnik *et al.* (2007). The illustrations were scanned at 600 dpi black and white, and mounted onto plates in Adobe®Photoshop®8.0. The illustrations were prepared with the aid of a zoom stereoscopic binocular microscope (Kyowa Getner DVZ-555 with maximum magnification of 90X) fitted with an ocular grid in one eye piece. The inking of the final drawings was done with Rottering black ink. Terminology used in the text follows that of Schmid (1989). During the cataloguing of species, names of some localities have been changed for those states and areas for which political boundaries have changed with the passage of time. Types of the new taxa are deposited in the Museum of the Department of Zoology and Environmental Sciences, Punjabi University, Patiala, India (PUPI).