



Review of the genus *Stenopsyche* McLachlan (Trichoptera: Stenopsychidae) in India

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Abstract

With 14 species on record, the genus *Stenopsyche* McLachlan is reviewed from India. We report variation for 3 previously recorded species, *Stenopsyche griseipennis* McLachlan, *S. dirghajihvi* Schmid and *S. apiguna* Schmid. A catalogue and key for males of Indian species is provided.

Key words: catalogue, South India, Sikkim, Himalaya

Introduction

Based on a male specimen collected from Assam, McLachlan (1866) described a new species *Stenopsyche griseipennis* as type species of a new genus, *Stenopsyche*, in Hydropsychidae Curtis. Martynov (1926) established the family Stenopsychidae including *Stenopsyche* McLachlan 1866, *Stenopsychodes* Ulmer 1926, and *Pseudostenopsyche* Döhler 1915. Later, *Parastenopsyche* was added by Kuwayama (1930) to this family, but Schmid (1969) in his revisionary work on the family Stenopsychidae, synonymised the genus *Parastenopsyche* with *Stenopsyche* and treated its species as the *S. sauteri* Group. The adults of *Stenopsyche* have prominent wing patterns, often with black and golden hairs, and in some species the mouthparts are extended and the mandibles are prominent (Schmid 1969).

The genus *Stenopsyche* contains over 81 species and is distributed in the Oriental and East Palearctic Regions, while *Stenopsychodes* and *Pseudostenopsyche* are limited to the Australasian Region and the Chilean Subregion of the Neotropical Region, respectively (Morse 2011). In the Oriental Region, more than 64 species of the genus *Stenopsyche* are known (Morse 2011). Many species are distributed in Afghanistan, China, Nepal, India, Thailand, Borneo, Laos, Vietnam and Myanmar, but a few species may reach eastern Russia, northern China, Japan, and Korea, and a single species is found in Africa. Larvae of several species of *Stenopsyche* have been described and their biology is well known (Tanida 2002). Larvae of Stenopsychidae are the largest in body size (length 30–52 mm) among net-spinning caddisflies, and they constitute a major component of the benthic macroinvertebrate fauna in tropical Asian streams. Schmid (1969) reviewed the family from the world. Tian (1988) reviewed males of the Chinese species of *Stenopsyche* and Hoang and Bae (2007) provided keys to the males and larvae of Vietnamese species.

So far 14 species of *Stenopsyche* have been reported from India. Since the developmental stages of *Stenopsyche* live in swiftly-flowing mountain streams, they are found throughout the Indian Himalayan belt, including Jammu and Kashmir, Uttarakhand, Himachal Pradesh, Sikkim, West Bengal, and in the northeastern states of Arunachal Pradesh, Meghalaya, Nagaland, Mizoram, Assam and Manipur; 4 species are known from similar habitats of central and southern India. A key to the species of West Bengal was provided by Ghosh and Chaudhury 1999. We describe the population variants of 3 known species. A catalogue of species of *Stenopsyche* from India is provided.