



Tsudaea, a new genus of Brachycentridae (Trichoptera) from Japan

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Abstract

The species, previously known as "*Eobrachycentrus kitayamanus* (Tsuda 1942)" originally described based on a male specimen, is here associated with the larval stage described by Akagi (1962) as "*Micrasema* sp. MD". Because both the adult and larva of this species have many unique characters within the family Brachycentridae, a new genus, *Tsudaea*, is erected for this species. Descriptions and illustrations of the adult and immature stages of *Tsudaea kitayamana* are provided. The larvae of *T. kitayamana* are unique among the Brachycentridae in having lateral humps present on the first abdominal segment.

Key words: Trichoptera, Brachycentridae, new genus, *Tsudaea*

Introduction

The Brachycentridae are a small family consisting of six previously recognized genera with about 100 species. Wiggins *et al.* (1985) reviewed the Japanese Brachycentridae, and transferred *Brachycentrus kitayamanus* Tsuda 1942 to the genus *Eobrachycentrus*. Tsuda (1942) described this species based on a single male collected from Kibune, a mountain area of Kyoto, central Japan. Subsequently, Morita and Kawase (2004) provided a new distributional record based on male and female material from a mountain area of Ishikawa, central Japan. Although the type specimen of this species was probably lost (Wiggins *et al.* 1985, Tanida *personal communication*), male specimens provided by H. Morita and T. Hattori are in accord with the original species description (Tsuda 1942). The male genitalia have some characters in common with *Eobrachycentrus* species, as previously suggested by Wiggins *et al.* (1985), but the phallus bears strong spines, which are not known from other *Eobrachycentrus* males.

Akagi (1962) described a unique brachycentrid larva as *Micrasema* sp. MD from a pond on the mountaintop of Utsukushigahara, Nagano, central Japan. The larva has a cylindrical case similar to those of *Micrasema*, but bearing many plant fragments somewhat similar to those of *Eobrachycentrus*. A few larvae of this species were provided to me by T. Ito and H. Kato in the 1990's. The larvae have some characteristics in common with those of other brachycentrid genera, but they differ by having first abdominal segment with lateral humps present. Lateral humps are common in all other case-making Trichoptera larvae (Wiggins 1996).

Mr. D. Tsuruta kindly provided me with larval specimens collected from the headwaters of the Tama River, Yamanashi, central Japan. I visited the same location and collected immature specimens. Some of these specimens were reared to adults in the laboratory, thus confirming identification of the larvae.

The purpose of this paper is to establish a new brachycentrid genus for this interesting species, and redescribe and illustrate the adult and immature stages. The pupal stage is described for the first time. Additionally, information on the larval habitat and biology is provided.