

A Redescription of *Apatania mongolica* Martynov, 1914 (Trichoptera: Apataniidae), Based on Materials from Southern Mongolia

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Abstract

The male of *Apatania mongolica* is redescribed, and the description of the previously undiagnosed female of this species is provided with illustrations. Based on the features of our material, the male of *A. mongolica* is easily distinguishable from those of other species of the genus by having a very broad median process of segment X curved ventrad and C-shaped. The female differs from those of other *Apatania* species by having the hind wing discoidal cell closed, the apex of segment IX rectangular in lateral view, and the supragenital plate well-developed and thick in lateral view.

Key words: *Apatania mongolica*, female description, diagnostic characters

Introduction

The male of a caddisfly species, *Apatania mongolica* was first described by Martynov (1914) based upon the collection made by M. Kozlov in 1908 from Alashan, Chyn-juan (presumably A-la Shan, Gansu Province and Inner Mongolia Autonomous Region, China). Subsequently, he transferred the species to the genus *Apatelia* Wallengren, 1886 (Martynov, 1917). Ulmer (1932) reported a male of *A. mongolica* at Yenching University in Beijing. Redrawing the illustrations of male genitalia of this species from Martynov's description, Schmid (1954) included it in his *A. mongolica* subgroup, *A. fimbriata* group, *A. fimbriata* supergroup. Later, Schmid (1955) analyzed the Apataniidae (as limnephilid subfamily Apataniinae) based on descriptions of several representative species and again placed *A. mongolica* into his *A. fimbriata* group, but the female of the species remained unknown. Presence of this species in Mongolia has not been confirmed since the report by Thienemann (1926).

During an insect survey, an unknown female was found in copula with a male of *A. mongolica*. This finding is providing us an opportunity to examine the mating pair of *A. mongolica* and present the first published description of the female and a redescription of the male.

Materials and Methods

A male and two females of *A. mongolica* were collected from the meadow surrounding Khairt spring, which is located about 20 km to the west of Khatsavch spring (E43.01046; N101.09266) in Gurvantes Soum in Umnugovi Aimag, Mongolia.

Methods used for preparation of genitalia are those outlined by Blahnik and Holzenthal (2004), and Blahnik *et al.* (2007). The abdomens were cut between segments III and IV, soaked in 12% potassium hydroxide (KOH), then heated on a hot plate for 15-20 minutes in order to digest ("clear") non-chitinous tissue. Cleared abdomens were passed through distilled water to remove the base, transferred to 70% ethyl alcohol for cleaning of the remaining debris with a fine-needle syringe, and permanently stored in glycerin. Wings of the specimens were mounted dry on microscope slides. Digital images of wings and genitalia were acquired with a Leica EZ4 D digital dissecting microscope camera. Length measurements were made using LAS EZ image capture software. These images were reduced to 18 X 23 cm and printed. All drawings were made by tracing the printed digital images, and then details of the genitalia were added by examining them in glycerin using the Leica EZ4 D dissecting microscope. Ruiter's (2000) terminology for