

First record of *Apatania aison* Malicky, 1997 (Insecta: Trichoptera) from India

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Abstract

In this paper, *Apatania aison* Malick, 1997 is reported for the first time from India (from West Bengal). Earlier this species was only reported and described from Nepal. This species belong to the *A. fimbriata* group of the genus *Apatania* of Family Apataniidae. With this addition, the genus is now represented by eight species from India.

Keywords: *Apatania*, Caddisfly, Singalila, West Bengal

Introduction

Genus *Apatania* Kolenati, 1848, is currently represented by about 125 species from the World (Morse, 2023). The genus is well distributed in the Palearctic as well as Oriental region from where most of its species have been described. From India, five species have been described by Schmid (1968), one species each by Kimmins (1950) and Mey and Malicky (1993). Since then there has been no addition of any new species or new country records from India. In the present paper, *Apatania aison* has been reported for the first time from Singalila National Park, West Bengal.

Materials and Methods

The caddisfly specimens were collected during a survey conducted at Singalila National Park, West Bengal under 'Fauna of Protected Areas' in 2021. The specimens were collected by light traps using mercury vapour lamps (160 Watts) placed near the edges of streams for 4–6 hours beginning at dusk. The specimens were killed and preserved directly in 90% ethyl alcohol. Pertinent locality and field data were recorded and appended to the collection bottles. Morphological characters like labial palps, antennae, setal warts, tibial spurs, wing maculation and venation, and genitalic appendages were examined microscopically. For species confirmation, the male

genitalia were removed from one of the specimens of each species and put in a 10% KOH solution overnight. After this treatment, the genitalia were put in 80% ethyl alcohol with a drop of glycerol. The drawings of various aspects were done with the help of a Radical Zoom stereoscopic binocular microscope (with a maximum magnification of 160X) fitted with an ocular grid in one eyepiece. The final drawings were rendered in black ink. The illustrations were scanned at 600 dpi grayscale and mounted onto plates in Adobe© Photoshop© 7.0. The specimens are deposited in the National Zoological Collection, Zoological Survey of India, Kolkata (NZC).

Results

Systematic Account

Apatania Kolenati, 1848

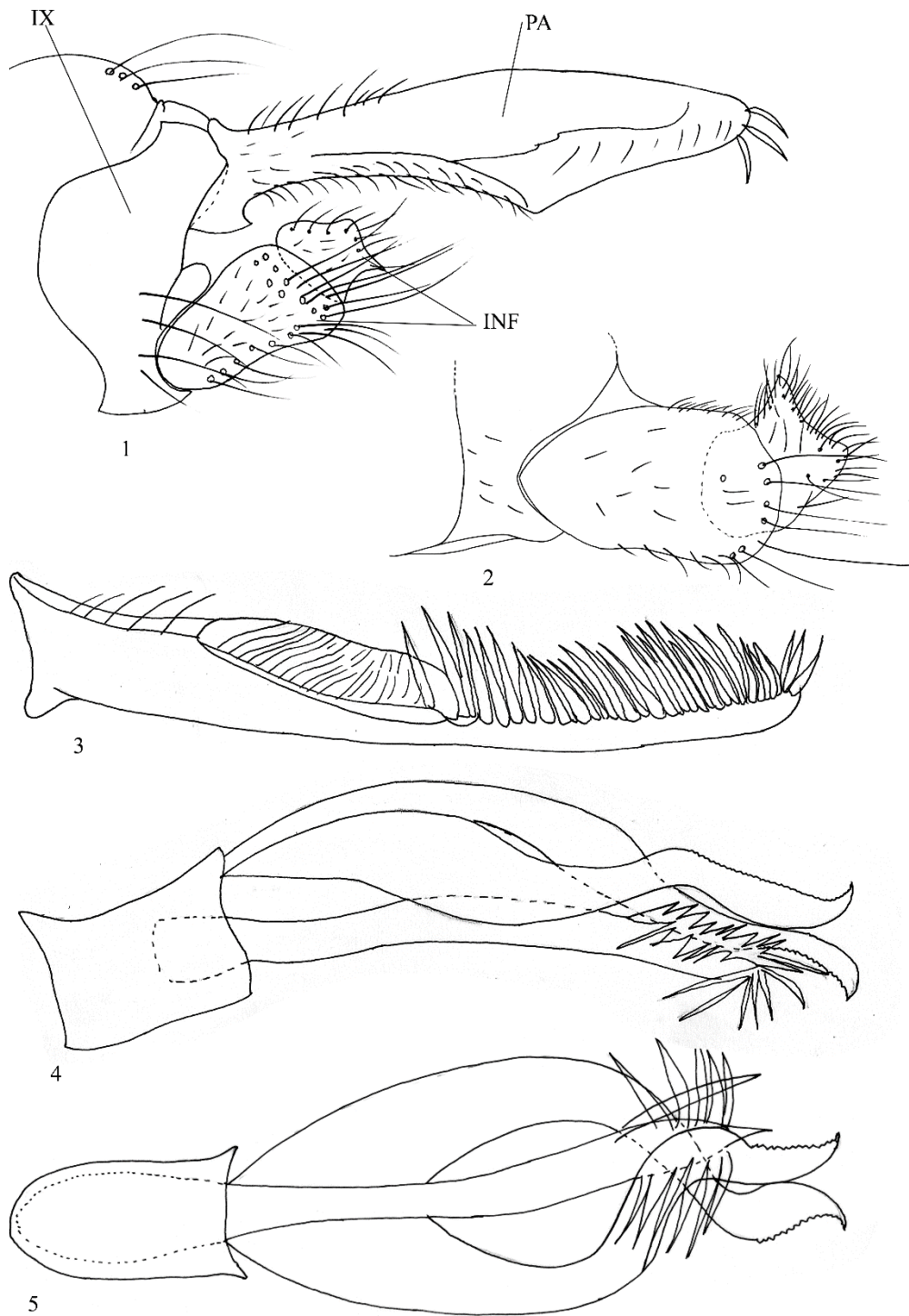
Type species: Apatania wallengreni McLachlan, 1871. Ent monthly Mag 7: 281

Apatania aison Malicky, 1997

1997. *Apatania aison* Malicky, *Linzer biol Beitr* 29(1): 229

Material examined: India: West Bengal; Singalila National Park, Gauribas, 27°03'03.6" N 88°01'58.8" E, 2,575 m, 28-ii-2021, Pandher (NZC). 4♂ (NZC- 8520/H13).

Diagnosis: This species belongs to the *A. fimbriata* group



Figures 1. Male genitalia of *Apatania aison* Malicky, 1997. 1. Lateral view, 2. Inferior appendage, Ventral view, 3. Preanal Appendage, Dorsomedian view, 4. Phallus, Lateral view, 5. Phallus, Ventral view. Abbreviations: IX- Segment 9; PA- Preanal appendage; INF- Inferior appendage.

and is related to *A. copiosa* McLachlan, 1875. Both these species have very long Preanal appendages which have different arrangements of hairs or other similar modifications.

Adult Male: Overall colour in alcohol brown, wings without any patches, Forewing length 8.5 mm.

Male genitalia: Segment IX produced anteromedially, dorsally reduced, ventrally slightly longer to accommodate inferior appendages as viewed in lateral view. Preanal appendages about 2X as long as the IXth segment, dorsal margin almost straight; ventral margin with a blunt extension just after the mid-length. Inferior appendages two segmented, basal segment longer than apical segment, apical segment somewhat twisted, pointed ventro-apically as viewed in lateral view; pointed medially in ventral view. Phallus long, slender, stretched, slightly sub-distally kinked, distally with some strong bristles; the parameres long and slender, slightly curved and finely serrated at the end.

Distribution: Nepal; India (West Bengal).

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Discussion

Most of the species of this genus are confined to high-altitude streams of the Himalayas as their larval stages flourish in the freshwater streams flowing in this region. *A. aison* has been described from Nepal and adjoining nations within the Himalayan region. So it is quite natural that these species might be present in other adjoining states of India but no published record has been made so far. Therefore, the present paper reports this species for the first time from India (West Bengal).

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