



Two new species of the genus *Eubasilissa* Martynov (Trichoptera: Phryganeidae) from the Indian Himalaya

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Abstract

Two new species of the genus *Eubasilissa* Martynov are described and illustrated from the Indian Himalaya, namely *Eubasilissa sikkimensis* **sp. nov.** from Lachung (Sikkim) that appears close to *Eubasilissa maclachlani* (White, 1862) and *Eubasilissa schmidi* **sp. nov.** from Bhaderwah (Jammu & Kashmir) that resembles *Eubasilissa avalokhita* Schmid, 1962. The female of *Eubasilissa asiatica* (Betten, 1909) is described and illustrated for the first time from Gurez valley (Jammu & Kashmir). With this addition of 2 new species, the genus *Eubasilissa* is now represented by 9 valid species from India.

Key words: Description, illustration, diagnosis, Sikkim, Jammu & Kashmir, caddisfly

Introduction

Caddisflies of the family Phryganeidae are mostly confined to the higher latitudes of the world's north temperate zone. They occur in habitats ranging from cold water streams and rivers through lakes and marshes to acidic bogs, temporary pools, and even brackish coastal waters. Leach (1815) erected the family-group name as Phryganides, a tribe for genera *Phryganea* and *Limnephilus*. Burmeister (1839) was the first to emend the name to Phryganeidae, as a family of Phryganeodea. The most important contribution to this family was by Wiggins (1998) who published a monograph, "The Caddisfly Family Phryganeidae (Trichoptera)." The family currently contains more than 80 extant species in 15 genera. In India this family is represented by 2 genera: *Neurocyta* Navás (1 species) and *Eubasilissa* Martynov (7 species). Species of the genus *Eubasilissa* are the largest living or extinct caddisflies (Ivanov, personal communication), with approximately 17 species over the globe. This genus is entirely Asian and is confined to the mountains rising between India, Afghanistan, Nepal, Burma, China, Tibet, Mongolia, Korea and Japan. In India this genus is confined to the states of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, West Bengal, Arunachal Pradesh and Nagaland.

Material and methods

Specimens examined in this study were primarily collected using a mercury-vapor bulb (160 W) placed in front of a white bed sheet. Traps were placed near the edges of some high altitude streams and tributaries for 1–3 hours beginning at dusk in dense forests. The adults were collected from an altitude ranging between 6000 ft. in Bhaderwah (Jammu & Kashmir) to 12,000 ft. in Apharwat (Jammu & Kashmir). The adults so collected were killed and preserved in 70% ethyl alcohol with a drop of glycerin. Some of the specimens were pinned with spread wings. To make detailed studies, the male genitalia were removed with fine-tipped forceps and treated with a lactic acid procedure (Blahnik *et al.* 2007). Photographs of wings and adults were taken with a Canon EOS 5D Mark II camera fitted with a 100-mm lens. The type specimens are deposited in the Museum of the Department of Zoology & Environmental Sciences, Punjabi University, Patiala, India.