



Four new species of the genus *Lepidostoma* Rambur (Trichoptera: Lepidostomatidae) from the Indian Himalayas, with a checklist to its Indian species

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Abstract

Four new species of the genus *Lepidostoma* Rambur are described and illustrated from the Indian Himalayas, namely *Lepidostoma kashmiricum* **sp. nov.** from Pahalgam (Jammu & Kashmir), *Lepidostoma himachalicum* **sp. nov.** from Raskar (Himachal Pradesh), *Lepidostoma dirangense* **sp. nov.** from Dirang (Arunachal Pradesh) and *Lepidostoma meghalayae* **sp. nov.** from Cherrapunge (Meghalaya), all in the *Lepidostoma ferox* Branch. With this addition of 4 new species, the genus *Lepidostoma* is now represented by 35 species from India. A checklist to all species of genus *Lepidostoma* of India is included.

Key words: Description, Diagnosis, Jammu & Kashmir, Himachal Pradesh, Meghalaya, Arunachal Pradesh

Introduction

The family Lepidostomatidae is widely distributed throughout the northern hemisphere, and extends southwards to Panama, New Guinea, and the Afrotropical Region. It was originally described by Ulmer (1903) as a subfamily of Sericostomatidae. It is divided into 2 subfamilies: Lepidostomatinae Ulmer 1903, and Theliopsychinae Weaver 1993. Subfamily Lepidostomatinae is represented by 2 genera in India, *Lepidostoma* Rambur 1842, and *Paraphlegopteryx* Ulmer 1907, whereas subfamily Theliopsychinae contains a single genus *Zephyropsyche* Weaver 1993, from this region. Ross (1944) synonymized nearly all of the Nearctic lepidostomatid genera with *Lepidostoma*. Weaver (1988) provided a synopsis of the North American species and later (Weaver 2002) a review of the world species in which he synonymized several genera with this genus, formerly separated by secondary sexual characters of the male. With a long list of 63 synonyms under this genus, Weaver (2002) divided it into 4 large branches based on the general types of male forewings that differ primarily in the anal region. These branches include the *Lepidostoma vernale* Branch, *L. podagram* Branch, *L. ferox* Branch and the *L. hirtum* Branch. The Indian species of genus *Lepidostoma* belong to 2 of these Branches, the *L. ferox* Branch, with 24 species, and the *L. hirtum* Branch, with 7 species.

This family is represented by 46 Indian species under 3 genera, *Lepidostoma*, *Paraphlegopteryx*, and *Zephyropsyche*. Genus *Lepidostoma* is represented by 31 species from this country (Morse 2011), including 17 species described by Mosely (1939, 1941, 1949a, 1949b, 1949c); 5 species by Martynov (1936); 2 species each by Malicky (1979, 2003), McLachlan (1871, 1878), Ulmer (1905, 1906), and Weaver (1989, 2002); and 1 species by Navàs (1932). Of these 31 species, 27 species have been reported from the Himalayan region and the remaining 4 species (*L. doligung* Malicky, *L. dubitans* Mosely, *L. palnia* Mosely and *L. lanca* Mosely) have been reported from central India and the Andaman Nicobar Islands. Morse (2011) listed 2 Burmese species (*L. shanta* Mosely and *L. taunggya* Mosely) and 1 Pakistani species *L. rema* Mosely from India in error (Morse, personal communication).