



Three new species of *Elachista* Treitschke (Lepidoptera: Elachistidae: Elachistinae) from Nepal

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Abstract

Three new species of *Elachista* Treitschke, *E. ievae* sp. nov., *E. tuberella* sp. nov. and *E. obtusella* sp. nov., from Nepal are described and illustrated. *E. ievae* is placed in *E. gleichenella* species group, *E. tuberella* and *E. obtusella* are placed in *E. freyerella* species group.

Key words: Lepidoptera, Elachistidae, *Elachista*, new species, Nepal

Introduction

Elachista Treitschke is the largest genus of the Elachistidae s. str. with about 550 named and about 200 discovered, yet unnamed species (Kaila & Ståhls 2006). The larvae of *Elachista* are leaf miners in monocotyledonous plants of the families *Cyperaceae*, *Poaceae* and *Juncaceae* (Traugott-Olsen & Nielsen 1977; Parenti & Varalda 1994). Only the Holarctic fauna of Elachistidae can be considered to have been relatively well investigated (Braun 1948; Traugott-Olsen & Nielsen 1977; Kaila 1995, 1996, 1997, 1999b). Studies in other regions of the world do not reflect the actual diversity of the group. The elachistid fauna of Nepal is still virtually unexplored. To date, only four species of *Elachista* has been recorded from Nepal: *E. metallica* Parenti, 1981, *E. bassii* Parenti, 2006, *E. albrechti* Kaila, 1998 and *E. nepalensis* Traugott-Olsen, 1999.

Investigation of the material obtained from the Natural History Museum, London and the Zoological Museum of the Finnish Museum of Natural History has resulted in the discovery of three new species from Nepal, which are described and illustrated below.

Methods

Terms used for morphological structures follow Traugott-Olsen & Nielsen (1977) and Kaila (1999a). Forewing length was measured along the costa from wing base to the apex of the terminal fringe scales. For a wingspan, the forewing length was doubled and thorax width added.

Genitalia were prepared following the method described by Robinson (1976) and Traugott-Olsen & Nielsen (1977). The genitalia were studied and some morphological structures were sketched in glycerol before permanent slide-mounting in Euparal.

The following institution abbreviations are used in this paper: BMNH – The Natural History Museum, London, United Kingdom; MZH – Zoological Museum, Finnish Museum of Natural History, Helsinki, Finland.