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Article



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A new species of *Urodeta* (Lepidoptera: Elachistidae: Elachistinae) from Nepal, the first record of the genus from Asia, showing an ancient distribution pattern

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Abstract

A new species, *Urodeta noreikai* Sruoga & De Prins, is described from the Nepalese Himalayas. The habitus and genitalia of both sexes are diagnosed and illustrated in detail. This discovery constitutes the first record of the occurrence of the genus *Urodeta* Stainton, 1869 in Asia and its biogeographic significance is discussed.

Key words: Asia, Elachistidae, Elachistinae, Himalayas, Lepidoptera, Nepal, new species, Urodeta

Introduction

The genus *Urodeta* Stainton, 1869 was a poorly studied taxon for more than 140 years. During the last 20 years its taxonomic placement has vacillated between different families and subfamilies (De Prins & Sruoga 2012). It was established by Stainton (1869) for the Mediterranean species *Urodeta cisticolella* Stainton, 1869 (= *U. hibernella* (Staudinger, 1859)) which became the type species of the genus *Urodeta* by monotypy. This genus was originally placed by Stainton (1869) in the Elachistidae: Elachistinae and after a convoluted taxonomic history (see details in De Prins & Sruoga 2012) the original placement suggested by Stainton in 1869 was confirmed as correct (Kaila 2011; Sruoga & De Prins 2011; De Prins & Sruoga 2012; Heikkilä *et al.* 2012). *Urodeta* appeared to be the elachistine genus with the greatest species richness in the Southern Hemisphere: 18 Afrotropical, two Australasian and one Mediterranean species are known at present (De Prins & Sruoga 2012). No *Urodeta* species was previously known to occur in Asia.

Moths of the genus Urodeta are very small to small with a wingspan of 4-8 mm. In male genitalia, the most distinctive feature is the anteriorly directed spines of the gnathos (in other elachistine genera the spines are directed posteriorly). In female genitalia, the most obvious diagnostic feature is that the apophyses anteriores extend from the middle of segment 8 and spread apart laterad while in many other elachistine species the apophyses anteriores extend from the lateral sides of segment 8. However, in nine species, [five Central African species (U. acerba Sruoga & De Prins, 2011, U. bucera Sruoga & De Prins, 2011, U. faro Sruoga & De Prins, 2011, U. talea Sruoga & De Prins, 2011, and U. tortuosa Sruoga & De Prins 2011), two from southern Africa (U. maculata (Mey, 2007), U. trilobata Sruoga & De Prins, 2012), one from Australia (U. sp. reared from Terminalia sp.), and in the new species from the Himalayas presented below, the anterior as well as posterior apophyses are either vestigial or absent. The known larvae are leaf-miners in dicotyledonous plants in the families Cistaceae (Stainton 1869: 227; Lhomme 1946–1963: 869; Zerkowitz 1946: 125) and Combretaceae (Kaila 2011: 47). The morphological characters diagnosing this genus have been systematized and verified only recently (Kaila 2004, 2011; Sruoga & De Prins 2011). Thus, it is not surprising that a series of 13 adult specimens collected by the first author during an expedition in the Himalayas of Nepal in 1995 remained in the collection unidentified. The generic assignment and the following description of the new species were postponed awaiting the accumulation of adequate taxonomic knowledge. Seventeen years later and only after the discovery and description of 16 African species collected by the second author (Sruoga & De Prins 2009, 2011; De Prins & Sruoga 2012) the identity of those 13 Himalayan specimens finally can be established.