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The first description of the leaf-mining Nepticulidae (Lepidoptera) feeding on the South American plant genus *Liabum*, Asteraceae

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Abstract

First *Liabum* Adans. (Asteraceae) feeding Nepticulidae are reported. Two new new species from the Andes (Ecuador) are described: *Stigmella serpantina* Diškus & Stonis, **sp. nov**. and *S. pangorica* Diškus & Stonis, **sp. nov**. The male genitalia of both species and the female genitalia, as well the leaf-mines of *S. serpantina* **sp. nov**. are illustrated.

Key words: Ecuador, host-plant, leaf-mines, *Liabum,* Nepticulidae, new species, *Stigmella*

Introduction

Liabum Adans. is a South American plant genus of Asteraceae (subfamily Cichorioideae) with about 26 species. No leaf-mining pygmy moths (Nepticulidae) have ever been recorded on *Liabum*. This paper is the first to report two South American Nepticulidae species associated with *Liabum* as a host-plant. Both of the species are assigned to *Stigmella* Schrank.

Material and methods

Descriptions of the new species are based on material deposited in the collection of Zoological Museum, University of Copenhagen, Denmark (ZMUC). Host-plant identification was made by Nixon Cumbicus Torres of the Departamento de Ciencias Naturales, Universidad Técnica Particular de Loja, Ecuador.

Techniques for genitalia preparation and protocols for description are outlined in Puplesis & Robinson (2000) and Puplesis & Diškus (2003).

Permanent slides were examined and photographed using a Leica DM2500 microscope and Leica DFC420 digital camera.

Terminology of morphological structures follows Johansson *et al*. (1990), Puplesis (1994), and Puplesis & Robinson (2000).

Stigmella serpentina Diškus & Stonis, sp. nov.

(Figs 1–16)

Type material. Holotype: ♂, ECUADOR: Chimborazo Province, ca. 30 km NE Pallatanga, 1°52'41"S, 78°54'11"W, elevation 3025 m a.s.l., mining larva on *Liabum* (possibly *L. barclayae* H. Rob.) 21.ii.2007, field card no. 4878, leg. A. Diškus, J. R. Stonis, genitalia slide no. AD705♂ (ZMUC). Paratypes: 1♂, 3♀, same label data as holotype, genitalia slides nos AD615♂, AD617♀, AD704♀ (ZMUC).

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