

Taxonomic Identification of Cinnamon (*Cinnamomum zeylanicum* Blume) Leaf Miner in Sri Lanka

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Cinnamon leaf miner is a minor pest in cinnamon cultivations of Sri Lanka, but causes severe losses in cinnamon nurseries resulting considerable expenditure for its management. Present study was undertaken to identify the larval taxonomy and adult morphology of cinnamon leaf miner, as the first comprehensive research in Sri Lanka. The study was conducted at National Cinnamon Research and Training Center of Sri Lanka. Insects reared both under field and laboratory conditions were observed under the microscope. Published taxonomic keys were referred to identify the larva and external morphology of the adult was compared with the previous reports of the experts. The initial instars of the larva were transparent, whitish in colour and it was changed to a glittering red towards the pupation. Larva was characterized by the strong and sclerotized mandibles which enable it to vigorously devour plant tissues. Antennae were short, three segmented and located towards the front of the head. Unequal, five stemmata were located laterally and posteriorly to the antennae. Four segmented strong thoracic legs ended with a claw. Abdomen consisted of 8 segments while pseudo legs were located on the iii, iv, v and x abdominal segments. Equal crochets were in a complete circle. The larva made an irregular shaped tunnel inside the immature leaf of cinnamon and continued to grow up to a length of 5mm inside the mine before pupating in an external cocoon of 6mm. The adult was a greyish moth of 3 to 5mm in length with a wingspan of 7 to 9mm. Wings are entire, scaled, lack stigma on front wing between C and R. Hind wings are fringed. Filiform antenna not knobbed at the tip with more than 41 segments longer than forewings. Proboscis coiled. Tibial spurs are conspicuous. Basal segment of antennae enlarged forming an eye cap. Present study confirmed that the Cinnamon leaf miner belongs to the *Acrocercops* spp. under Order Lepidoptera, Family Gracillariidae and Subfamily Gracillariinae. This study laid foundation to further studies on biology and management strategies of Cinnamon leaf miner in Sri Lanka.

Keywords: *Acrocercops* spp.; *Cinnamomum zeylanicum*; Gracillariidae; Taxonomy