

Description of two leaf-miner larvae (Coleoptera: Chrysomelidae: Cassidinae) from the Brazilian Atlantic forest

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Abstract

Larvae of the leaf-miners *Sceloenopla pretiosa* (Baly, 1858) (Cassidinae, Sceloenoplini) and *Octuroplata walkeri* (Baly, 1865) (Cassidinae, Chalepini) are described and illustrated. This larval description of *O. walkeri* is the first for the genus *Octuroplata*. The larvae were collected in atlantic rain forest and reared in the laboratory. The studied larvae shown the morphological adaptations common to the highly specialized leaf-miners and the larvae pupate inside the mine. Larvae of *Octuroplata walkeri* is similar to *Sceloenopla pretiosa* and the differing characteristics are described.

Key words: larva, Chalepini, Sceloenoplini, *Octuroplata*, *Sceloenopla*, Brazil

Introduction

Leaf-miner insects evolved to explore a singular niche. Larvae of Diptera, Lepidoptera, Coleoptera and Hymenoptera feed inside the leaf parenchyma and this activity results in channels that are visible as mines. In Coleoptera leaf-miner species are found scattered among other species in Buprestidae, Chrysomelidae and Curculionidae (Frost, 1942). These larvae present some adaptations to miner life and sometimes thoracic legs are reduced or absent, and frequently the fore part of the larva body is strongly thickened, which facilitates the penetration into plant tissue. Pupation takes place in the mine or in the ground (Hering, 1951).

Leaf-mining habits are more often developed in chrysomelid species, especially “Hispiinae” (Connor & Tavener, 1997). The larvae are flattened, having short and widely separated thoracic legs (Needham *et al.*, 1928), and make large and irregular blotch mines (Frost, 1942). In the highly specialized *Octotoma* Suffrian, 1868, larvae are legless and have a strongly wedge shaped front. In Alticinae, leaf-miners species are exceptions and