The larva and the food plant of *Dirphia sombrero* Le Cerf, 1934 (Lepidoptera: Saturnidae, Hemileucinae)

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Abstract

The last instar larva of *Diphia sombrero* Le Cerf, 1934, an endemic species to the southern Brazil Atlantic Forest, is described and illustrated, and its food plant is recorded.

Keyword: Lepidoptera, Saturniidae, Hemileucinae, Dirphia, caterpillar, food plant, Neotropical.

A lagarta e a planta hospedeira de Dirphia sombrero Le Cerf, 1934 (Lepidoptera: Saturniidae, Hemileucinae)

Resumo

O último instar da lagarta de *Diphia sombrero* Le Cerf, 1934, uma espécie endêmica da Mata Atlântica do sudeste do Brasil, é descrita e ilustrada, e sua planta hospedeira é registrada.

Palavras-chave: Lepidoptera, Saturniidae, Hemileucinae, Dirphia, lagarta, planta hospedeira, Neotropical.

La larva y la planta alimentaria de Dirphia sombrero Le Cerf, 1934 (Lepidoptera: Saturniidae, Hemileucinae)

Resumen

Se registra e ilustra el último estado de la larva de *Diphia sombrero* Le Cerf, 1934, una especie endémica de los bosques atlánticos de sudeste de Brasil y su planta nutricia.

Palabras clave: Lepidoptera, Saturniidae, Hemileucinae, Dirphia, oruga, planta alimentaria, Neotropical.

Introduction

Dirphia Hübner, [1819] is a Neotropical genus of Saturniidae which includes 40 species (Lemaire, 2002, p. 784), of which the caterpillars of nine species were figured by Lemaire (2002, plates ES 11, 12). *Dirphia sombrero* Le Cerf, 1934 is endemic to southeastern Brazil, at high elevations (800-2000 m), in the States of São Paulo and Rio de Janeiro. Its larva and food plant have been unknown until now. A group of larvae were collected, one of them pupated and one male emerged. This note brings, for the first time, the description of the last instar larva and the record of its food plant.

Material and methods

This note is based on caterpillars collected at the Intervales Biological Station, 800 m, 24°27'S, 44°41'W, Ribeirão Grande, São Paulo State, and reared on the food plant, on the single male that emerged, and on the pertinent literature. Eight caterpillars were collected, on 7 November 2021. However, due to unfavorable conditions during transportation, only one caterpillar survived the trip and pupated. The container with the pupa was checked for several months. As no adult emerged, it was assumed to be dead. However, after nine months, while cleaning the container, a dead, badly descaled male was found on the bottom of the container. Examination of its genitalia confirmed the identification. For this reason, the male illustrated here is a specimen collected at light at São José do Barreiro, also in São Paulo State, not far from Intervales.

Results and discussion

The male specimen that emerged revealed that it belongs to *Dirphia sombrero* Le Cerf, 1934.

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Dirphia sombrero Le Cerf, 1934 (Figures 1, 2)
Dirphia sombrero Le Cerf, 1934. Revue suisse de Zoologie, 41, 263
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Diagnosis: Adult male (Figure 1) FW length 43-45 mm (92-98 mm wingspan) dark fuscous, irrorated with pale yellow scales, antemedial and postmedial bands dentate, with a pale fuscous band along termen. HW dark fuscous. Abdomen black, banded with long, pale yellow scales. Last instar larva bright red, crossed with irregular black lines, and with the scoli and spiraculum white.

Description: Last instar larva (Figure 2) circa 7 cm long. Head and thoracic legs bright red. Prolegs and anal plate vinaceous. Body orange red, crossed with irregular, sinuous black lines. Scoli white. Spiraculum white, ringed black. An irregular, subventral, black band along the body.

Food plants and behavior: The larvae were collected on young trees of *Myrsine coriacea* (Sw.) R. Br. (Primulaceae) and fed in the laboratory. Both species, are common trees in secondary growth forests along the Atlantic Forest of southeastern Brazil, at high elevations. Their fruits are very important to frugivorous birds, which are the most important dispersal agents of these plants.

Remarks: Undoubtedly the most showy and beautiful caterpillar of the genus. It is strongly distinct from all the nine caterpillar species illustrated by Lemaire (2002, plates ES 11, 12). Species of *Myrsine* have been recorded as food plants of *Dirphia monticola* Zerny, 1924 and *Callodirphia arpi* (Schaus, 1908), two sympatric, also high elevation species (Zikán, 1927).

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References

Le Cerf, E. (1934). Deux Saturnoides nouveaux du Museum de Genève. Revue suisse de Zoologie, 41, 263-266. https://doi.org/10.5962/bhl.part.146003

Lemaire, C. (2002). Hemileucinae. The Saturniidae of America (Vols. 1-3). Goecke & Evers.

Zikán, J. E. (1927). Biologie der *Heliconisa*-Arten (Lep. Saturnid.). *Deutsche entomologische Zeitschrift*, 1927, 58-82. https://doi.org/10.1002/mmnd.48019270106

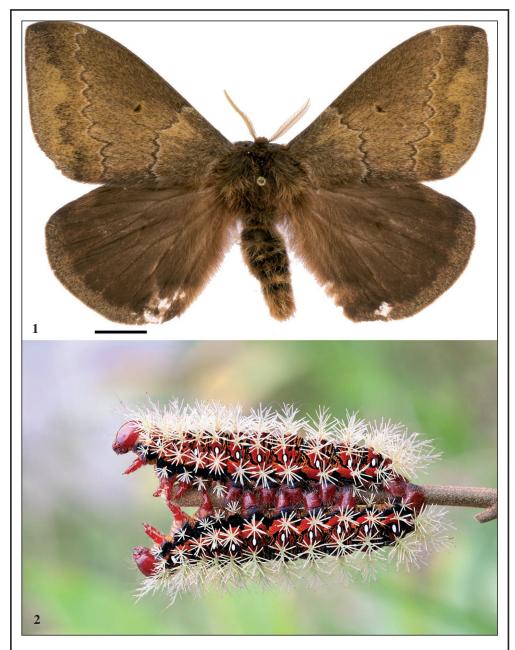
THE LARVA AND THE FOOD PLANT OF DIRPHIA SOMBRERO LE CERF. 1934

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Figures 1-2. *Dirphia sombrero.* **1.** Adult male, São José do Barreiro, São Paulo, Brazil. **2.** Last instar larvae, Intervales Biological Station, Ribeiro Grande, São Paulo, Brazil.