

# BOCAGIANA

Museu Municipal do Funchal (História Natural)

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Madeira

03.V.2000

No. 199

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***CATOPSILIA FLORELLA* (FABRICIUS, 1775) (LEPIDOPTERA: PIERIDAE), AN AFROTROPICAL SPECIES FOUND BREEDING IN MADEIRA ISLAND**

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**ABSTRACT** The African Migrant, *Catopsilia florella* (FABRICIUS, 1775) is reported for the first time from Madeira Island. It was found breeding in several localities around Funchal, on its host plant *Senna didymobotria* (FRESEN.) IRWIN & BARNEBY. The species was reared successfully in captivity. Notes on the world distribution and ecology of *C. florella* are given.

**KEY WORDS:** *Catopsilia florella*, Lepidoptera, Pieridae, Madeira, first record.

**RESUMO** Refere-se pela primeira vez, a presença na Ilha da Madeira, do pierídeo migratório de origem Africana, *Catopsilia florella* (FABRICIUS, 1775). Foi observado e colhido sobre a sua planta alimentar, *Senna didymobotria* (FRESEN.) IRWIN & BARNEBY, em várias localidades na área do Funchal. São também fornecidos dados sobre a sua distribuição mundial e ecologia.

**PALAVRAS-CHAVE:** *Catopsilia florella*, Lepidoptera, Pieridae, Madeira, primeira referência.

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## INTRODUCTION

A female *Catopsilia florella* (FABRICIUS, 1775) was spotted by the author for the first time in Madeira in Funchal (Lombo da Boa Vista) at 19 June 1999, flying around a Popcorn Bush (*S. didymobotria*). A close inspection of the plant revealed that many eggs had been laid on the young leaves, mainly on the upper surfaces and margins, but there was rarely more than one egg per leaf. Several eggs were collected and the larvae bred in captivity. The first larva emerged at 22 of June. The larval stage lasted for 14 days and the pupal stage lasted for 12 days. Females of the different colour forms mentioned below were obtained.

The author had the opportunity to make the further observations of *C. florella*: 19.vi.1999, Lombo da Boa Vista, 175 m, 28SCB2214 (UTM co-ordinates from the 1/25 scale military map), 1 female spotted and 5 eggs collected; 22.vi.1999, Boa Nova, 300 m, 28SCB2314, eggs collected; 23.vi.1999, Funchal (Av. do Mar), 5 m, 28SCB2113, eggs observed; 25.vi.1999, Ajuda, 75 m, 28SCB1812, eggs observed; 25.vi.1999, Ramboia, 50 m, 28SCB1712, eggs collected; 3.vi.1999, Lombo da Boa Vista, 175 m, 28SCB2214, 6 eggs and 3 larvae collected; 27.vi.1999, Ilhéus, 50 m, 28SCB2013, 2 imagoes observed flying; 27.vi.1999, Gorgulho, 50 m, 28SCB1912, 1 imago observed flying; 6.vii.1999, Casa Branca, 60 m, 28SCB1912, 3 larvae collected; 10.vii.1999, Lombo da Boa Vista, 175 m, 28SCB2214, 1 female laying eggs and 37 eggs observed.

The 13 imagoes bred in captivity have been deposited in the collections of the Laboratório Agrícola da Madeira (ICLAM), Museu Municipal do Funchal (MMF) and the author's collection.

The geographical distribution of *C. florella* includes all of Africa south of the Sahara, Saudi Arabia, Syria, Iran, India, Ceylon and China (MANLEY & ALCARD, 1970). It is one of the commonest butterflies in Africa and was first described from specimens collected in Sierra Leone. In Macaronesia, it is already recorded from the Cape Verde Archipelago, where it occurs in the islands of São Nicolau, Boa Vista, São Tiago, Fogo and Brava (TRAUB & BAUER, 1982). According to BAEZ (1998), *C. florella* was first recorded in the Canary Islands from Tenerife in 1965. Subsequently it was recorded from Gran Canaria in 1966, La Gomera and Lanzarote in 1977, La Palma in 1988, Fuerteventura in 1990 and El Hierro in 1997, having colonised the archipelago.

*C. florella* has a wingspan ranging from 50 to 65 mm and shows slight sexual dimorphism. The fore and hind-wing dorsal surfaces are white with a greenish tinge in the male, and the forewing has a small dark spot in the discal area. Dorsal surface wing colour in the common female form is yellow, with dark brown patches on the forewing apex and margin, and the discal spot is larger and browner than in the male. Of the

numerous forms already described, female f. *pyrene* (SWAINSON, 1821) is similar in coloration to the male, and female f. *hyblaea* (BOISDUVAL, 1836) is intermediate in coloration between nominotypical males and females. Both these female forms occur in the Canary Islands and according to (OWEN, 1971), in Africa at least, the yellow form is much more frequent in the dry season and the white form more common in the wet season.

The whitish eggs are small, pointed at both ends and crossed longitudinally by 12 ridges. The larvae can attain a length of 48 mm and are bright green coloured if they feed on the leaves of their food plant. The larvae are yellow if they feed on the flowers of their food plant (GARCÍA-BECERRA *et al.*, 1992).

According to WILLIAMS (1976), in Africa *C. florella* can be “found throughout in a variety of habitats from open grassland and bush to margins of forest”. In the Canary Islands, *C. florella* flies all year round, from sea level to medium altitudes, mainly in parks and gardens where its food plant, *Senna didymobotria* (FRESEN.) IRWIN & BARNEBY. (Caesalpiniaceae), is cultivated. In Africa *C. florella*, feeds on several wild (mainly savanna) trees and bushes) and cultivated species of *Cassia* (OWEN, 1971).

*C. florella* has a strong, direct flight and often exhibits migratory behaviour. A recent paper by LARSEN (1992), describes a large migration of *C. florella*, which comprised more than 1.5 billion individuals, and flew continuously for three weeks over an area of 1000 km in Botswana. Given the migratory capacity of this species, the appearance of *C. florella* in Madeira is not highly unexpected, as Madeira is only 600 km north of the Canary Islands and 600 km west of Africa, where the species is already present.

#### ACKNOWLEDGEMENTS

I am very grateful to Dr. Andrew Wakeham-Dawson for the critical review of the present short notice.

#### REFERENCES

BAEZ, M.:

1998. *Mariposas de Canarias*. Editorial Rueda, S.L., Madrid, 216 pp. [p. 40]

GARCIA-BECERRA, R.; ORTEGA-MUÑOZ, G. & PÉREZ-SÁNCHEZ, J. M.:

1992. *Insectos de Canarias*. Cabildo Insular de Gran Canaria, Las Palmas de Gran Canaria, 418 pp. [pp. 308-309]

LARSEN, T. B.:

1992. Migration of *Catopsilia florella* in Botswana (Lepidoptera: Pieridae). *Tropical Lepidoptera*, **3** (1): 2-11.

MANLEY, W. B. L. & ALCARD, H. G.:

1970. *A Field Guide to the Butterflies and Burnets of Spain*. E. W. Classey Ltd., 192 pp. + 40 plates [pp. 128-129]

OWEN, D. F.:

1971. *Tropical Butterflies - The ecology and behaviour of butterflies in the tropics with special reference to African species*. Clarendon Press, Oxford, 214 pp.

TRAUB, B. & BAUER, E.:

1982. Zur Macro-Lepidopteren-Fauna der Kapverdischen Inseln. *Cour. Fosch. - Inst. Senckenberg*, **52**: 225-229

WILLIAMS, J. G.:

1976. *A Field Guide to the Butterflies of Africa*. Collins, London, 238 pp. [p. 98].