



Description of *Nemophora acaciae* sp. nov. (Lepidoptera: Adelidae) from Kenya

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Abstract

Nemophora acaciae sp. nov. is described from Kenya on the basis of a large series bred from flowers of *Acacia seyal* and *A. lahai*. The new species differs from all Afrotropical *Nemophora* species by its dark brown forewing fascia with white medial stripe near the costal margin of forewing. The key to the Afrotropical *Nemophora* species is provided.

Key words: *Acacia lahai*, *Acacia seyal*, Afrotropical region, biology, flowers, new species

Introduction

Adelidae are small archaic (monotrysian) moths, whose males, with the exception of the genus *Cauchas* Zeller, 1839 have conspicuous long antennae. The family includes nearly 300 species worldwide (van Nieukerken *et al.* 2011), about 90 of which were described from the Afrotropical region (De Prins & De Prins 2015). The majority of Afrotropical species of Adelidae belongs to the genus *Ceromitia* Zeller, 1852 (subfamily Nematopogoninae), while metallic-coloured day-flying adelids (subfamily Adelinae) include 2–4 species of the genus *Adela* Latreille, 1796 (taxonomic positions of two species remain uncertain) and 7 species of the genus *Nemophora* Hoffmannsegg, 1798.

The Afrotropical species of the genus *Nemophora* are known from their type series only, and no information is available on their life history. The rearing of a large series of an unknown species of *Nemophora* by the first author provided an excellent opportunity to elucidate the biology of the Afrotropical representative of this genus. This species will be included in an ongoing project, aimed at exploration of the phylogeny of the genus *Nemophora*. We chose to publish a separate description in order to provide this species with a valid name prior the publication of molecular data.

Methods

Flowers of acacia are used by many lepidoptera larvae, including Eupitheciini, Chrysopeliidae and Gelechiidae (*Anarsia* spp.; D. Agassiz, pers. obs.). To study these, flowers of *Acacia seyal* and *A. lahai* were collected on 10–11 May 2014 and placed in plastic boxes. After some days the stalks were removed to prevent development of mould, otherwise they were monitored to prevent excessive condensation and collect emerging moths. *Nemophora* specimens emerged two or three weeks later than examples of the above families.

The male genitalia were investigated as described by Kozlov (1993); interocular index calculated according to Davis (1975), being the ratio between the vertical diameter of the compound eye and the interocular distance measured at a point of the frons midway between the base of the antennal sockets and the anterior tentorial pits. The following abbreviations are used: FWL—forewing length, PLB—labial palpi. Abbreviations for the collections: MZH—Zoological Museum, University of Helsinki, Finland; NHM—The Natural History Museum, London, U.K.; NMK—National Museums of Kenya, Nairobi, Kenya; ZISP—Zoological Institute, St. Petersburg, Russia.