

## Systematic revision of the fruit fly genus *Carpophthoromyia* Austen (Diptera, Tephritidae)

MARC DE MEYER

Royal Museum for Central Africa, Entomology Section, Leuvensesteenweg 13, B-3080 Tervuren, Belgium.

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## Abstract

The Afrotropical fruit fly genus *Carpophthoromyia* Austen is revised. In total, 17 species are recognized of which 7 are new to science: *C. debeckeri* sp.n., *C. dividua* sp.n., *C. flavofasciata* sp.n., *C. interrupta* sp.n., *C. radulata* sp.n., *C. schoutedeni* sp.n. and *C. virgata* sp.n.. *Carpophthoromyia amoena* Enderlein is considered a junior synonym of *C. vittata* (Fabricius). *C. angusticeps* Bezzi is considered not to belong to *Carpophthoromyia* but to the gastrozonine genus *Clinotaenia* Bezzi: *Clinotaenia angusticeps* (Bezzi) comb.nov. A lectotype is designated for each of *C. litterata*, *C. pseudotritya*, and *C. tessmanni*. All species are described or re-described, with illustrations of wing patterns and male and female terminalia where deemed necessary for unambiguous identification. An identification key to species is provided.

**Key words:** fruit flies, *Carpophthoromyia*, Ceratitidina, Afrotropical

## Introduction

Tephritidae are picture-winged flies of variable size and worldwide distribution. Although commonly named 'fruit flies', the larvae of some species develop in other parts of the host plant, including flowers, seeds and stems. Fruit flies of economic significance were treated by White and Elson-Harris (1994), and the currently acknowledged classification is presented by Norrbom *et al.* (1999) and Korneyev (1999). The larvae of most Ceratitidina species develop in fruit, and several species of agricultural importance are known, especially within the genera *Ceratitis* McLeay, *Capparimyia* Bezzi, *Neoceratitis* Hendel and *Trirhithrum* Bezzi. Several of the ceratitidine genera have recently been revised systematically (De Meyer, 2000 and references therein for *Ceratitis*, White *et al.*, 2003, De Meyer & Freidberg, 2005)

The genus *Carpophthoromyia* Austen (Dacini: Ceratitidina) is a small Afrotropical group, developing mainly in the fruits of *Drypetes* species (Euphorbiaceae). Material in collections is sparse and the genus has never been the subject of a revision. Representatives of the family are usually darkly coloured flies of medium size, with a dark wing-banding pattern. They seem to be closely related to another small Afrotropical genus, *Perilampus* Bezzi.

In this paper I revise all representatives of the genus *Carpophthoromyia*, re-describe the genus and the previously known species, and describe seven new species. Specific commentaries on nomenclatorial or taxonomic issues are presented under each taxon where this is deemed necessary. Species grouping and host plant specificity is briefly discussed.