



## A description of a new species of *Diasemopsis* (Diptera, Diopsidae) from the Comoro Islands with morphological, molecular and allometric data

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### Abstract

A new species of *Diasemopsis* (Diptera, Diopsidae) from Comoro Islands is described and illustrated for the first time with allometric dataset. *Diasemopsis comoroensis* Carr & Földvár is shown to be genetically close, but morphologically distinct from the widespread Afro-tropical species *D. meigenii* (Westwood); notably a significant divergence in the degree of sexual dimorphism within eye span has occurred between the two species. A revised molecular phylogeny of the genus *Diasemopsis* is presented based on the partial sequences of four genes.

**Key words:** Diopsidae, *Diasemopsis*, Comoro Islands, new species, morphological description, genitalia, eye span allometry, molecular phylogeny

### Introduction

The diopsid stalk-eyed flies are a diverse Schizophoran family, comprising approximately 160 known species. Diopsidae is divided into the Centroncinae, which do not possess eyestalks and the Diopsinae, all of which do. Uniquely amongst dipterans males and females possess eyestalks, at the end of which are located both their eyes and antennae.

Recent molecular and morphological studies have produced a robust phylogeny of the stalk-eyed flies (Baker *et al.* 2001, Meier & Baker 2002, Kotrba and Balk 2006). Emphasis within these studies has been placed on the genus *Diasemopsis*, a group of 51