

## The genera *Demoulinia* Gillies and *Potamocloeon* Gillies (Ephemeroptera: Baetidae) in Madagascar

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### Abstract

To complete a recent revision of Malagasy Baetidae from still and standing waters, a study of the genera *Demoulinia* Gillies and *Potamocloeon* Gillies was undertaken; the latter is reported for the first time from the island. A global revision of the genus is undertaken; the validity of the different species is discussed. A new species of *Demoulinia* is described herein. *Demoulinia assimilis* n. sp. is distinguished by the number of segments of the maxillary palp, the shape of the hypopharynx, and the edentate tarsal claws. The systematic position of *Demoulinia* and *Potamocloeon* is examined. A redefinition of the *Bugilliesia* complex is proposed.

**Key words:** Baetidae, Madagascar, *Demoulinia*, *Demoulinia assimilis* n. sp., *Potamocloeon*, systematics

### Introduction

Important systematic works have been published recently on the Malagasy Baetidae, allowing the description of more than 40 new species (Gattolliat & Sartori, in press). Despite the fact that the Baetidae are quite abundant and diverse in still and standing waters, their knowledge remained deficient in Madagascar. To fill that gap, a revision of the genus *Cloeon* Leach has just been completed (Gattolliat & Rabeantoandro, 2002). Other genera such as *Demoulinia* Gillies and *Potamocloeon* Gillies also present adaptations for slow-moving waters (Gillies, 1988; Lugo-Ortiz & McCafferty, 1996a; 1998c).

The genus *Demoulinia* was established for *Centroptilum crassi* Demoulin (= *Centroptilum pulchrum* Crass), a rather unusual South African species previously assigned to *Centroptilum* Eaton (Crass, 1947; Demoulin, 1970; Gillies, 1990b). A new species, *Demoulinia insularis* Lugo-Ortiz and McCafferty, was recently described from Madagascar (Lugo-Ortiz & McCafferty, 1998c). This constituted the first report of the genus out of