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Grasshoppers of the Mascarene Islands: new species and new records (Orthoptera, Caelifera)

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Abstract

The grasshopper fauna of Mascarene Islands (Mauritius, Rodrigues and La Réunion), in South Western Indian ocean is examined. Numerous field surveys and examination of museum specimens recorded twenty species of Grasshoppers on the archipelago. Five of them are new records, including a new species: *Odontomelus ancestrus* n. sp. restricted to Round Island, a 2 km² islet North to Mauritius. Despite intensive searching, five of the non endemic species once recorded on the archipelago have not been recorded again and might correspond to temporary settlements/introductions. A key to Mascarene grasshoppers is given.

Key words: Orthoptera, endemism, island, extinction, Mauritius, Rodrigues, Réunion

Introduction

Whereas Ensifera, particularly Grylloidea, can display an impressive diversity on remote tropical oceanic islands (Matyot 1998; Otte 1994; Otte and Cowper 2007), Caelifera are usually less represented, but they display a similarly high rate of endemism (e.g. Peck 1996; Zimmerman 1948; Matyot 1998; Hebard 1933; Evenhuis 2007). The Mascarene Archipelago is a group of islands in the South Western Indian Ocean, consisting of Mauritius, Réunion and Rodrigues (Fig. 1). When the grasshopper fauna of Mascarene Islands was last examined, only eight species were recorded, two of them being considered endemic to one of the island (Vinson 1968). This grasshopper fauna was therefore regarded as poor as both species number and endemism were low (Vinson 1968).

Since that time, six new Caelifera species have been described from the archipelago (Descamps 1968; Günther 1974; Kevan 1976; Hugel 2007), all being single island endemic species.

Using the data I collected during the last decade and examination of museum specimens, this study is aimed at updating the knowledge on both endemic and non-endemic Mascarene grasshoppers. Threats to endemic grasshopper species are addressed separately (Hugel, 2015).

Methods

Material examined. Numerous field surveys were conducted over the last decade on Mascarene Islands (Fig.1). These field surveys in Mauritius and Rodrigues (2002, 2005, 2008, 2009, 2011, 2012, 2013), and La Réunion (1998, 2002, 2004, 2005, 2007, 2009, 2012, 2013, 2014), together with examination of museum collections (see below, Material repository) allowed to update the knowledge on Mascarene grasshoppers.

Material repository

BMNH The Natural History Museum, London (formerly British Museum of Natural History)
MNHN Museum national d'Histoire naturelle, Paris

- 19(17'). Inner spur on inner side of hind tibia not modified; hind wings transparent or pale yellowish; large species. *Locusta migratoria*.
- 19'. Inner spur on inner side of hind tibia with small preapical projection; supposedly with yellow wings in Mauritius (see text); species of medium size. *Heteropternis pudica*.

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