



***Glomeremus* species from the Mascarene islands (Orthoptera, Gryllacrididae) with the description of the pollinator of an endemic orchid from the island of Réunion**

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Abstract

Glomeremus Karny, 1937 species from the Mascarene islands are examined. One new species is described from Réunion: *G. orchidophilus* n. sp.. Two new species are described from Mauritius: *G. paraorchidophilus* n. sp. and *G. tikasignatus* n. sp.. The case of *G. shelfordi* (Griffini, 1909) supposedly described from Mauritius is discussed as well as the likely polyphyly of the genus *Glomeremus*. *G. orchidophilus* n. sp. is the only pollinator of the Orchid *Angraecum cadetii* on Réunion, representing the first supported case of regular pollination by an insect from the order Orthoptera in extant flowering plants. The possible involvement of Mauritian *Glomeremus* in *A. cadetii* pollination on Mauritius is discussed.

Key words: Mascarene Archipelago, raspy cricket, pollinator, Mauritius, Réunion

Introduction

In the present note, *Glomeremus* Karny, 1937 species from Mascarene islands are examined. Up to now, only one *Glomeremus* species was supposedly occurring on this archipelago: *Glomeremus shelfordi* (Griffini, 1909). This species was described after one female labelled “Mauritius?”. This type specimen is badly damaged. In spite of numerous field studies in the Mascarene archipelago, we failed to find this species, raising doubts over the real origin of this type specimen. However, these field studies allowed the recording of three new species: *G. tikasignatus* n. sp. and *G. paraorchidophilus* n. sp. occurring in Mauritius, and *G. orchidophilus* n. sp., a closely related species from Réunion. The likely paraphyly of *Glomeremus* is briefly discussed. Elements of the biology of *Glomeremus* from Réunion and Mauritius are given. Surprisingly, *G. orchidophilus* n. sp. was recorded as the only pollinator of the orchid *Angraecum cadetii* (Vandaeae, Epidendroideae) on Réunion (Micheneau *et al.*, 2010), representing the first clearly-supported case of orthopteran-mediated pollination in flowering plants. As *A. cadetii* occurs also on Mauritius, the possible involvement of Mauritian *Glomeremus* in *A. cadetii* pollination on Mauritius is discussed.

Material and methods

Species authorship. The author of the three species described in the present article is Hugel.

Specimens examined. The new taxa described in the present paper are based on specimens recently collected on the islands of Réunion and Mauritius. All specimens have been collected by sight collecting during night hours using a halogen headlamp and a net.