



Dombeya sevathianii (Malvaceae): A new critically endangered species endemic to Mauritius (Indian Ocean)

TIMOTHÉE LE PÉCHON^{1*}, CLAUDIA BAIDER², LUC D.B. GIGORD³, AGATHE HAEVERMANS⁴ & JEAN-YVES DUBUISSON⁵

¹ Université de la Réunion, LIM-IREMIA, BACOMAR Project, 2, rue Joseph Wetzell, 97490. Sainte Clotilde, La Réunion.
E-mail: thimothee.le-pechon@univ-reunion.fr

² The Mauritius Herbarium, Mauritius Sugar Industry Research Institute, Réduit, Mauritius.

³ Conservatoire Botanique National de Mascarin, 2, rue du Père Georges, F-97436. Saint Leu, La Réunion.

⁴ Muséum National d'Histoire Naturelle, UMR 7205 CNRS Origine, Structure et Evolution de la Biodiversité, Herbarium National, CP39, 57, rue Cuvier, 75231 Paris cedex 05. France.

⁵ Université Pierre et Marie Curie, UMR 7207 CNRS-MNHN-UPMC "Centre de Recherche sur la Paléobiodiversité et les Paléoenvironnements", bâtiment de géologie, CP48, 57, rue Cuvier, F-75005 Paris, France.

Abstract

Dombeya sevathianii, a new endemic species from Mauritius, is described and illustrated. Based on its morphology, *D. sevathianii* belongs to the section *Assonia* as defined by Arènes and is closely related to *D. populnea*, endemic to La Réunion and Mauritius. These affinities are confirmed by a previous molecular study. The morphological diagnostic features for *D. sevathianii* are the cupuliform and entire epicalyx, and the absence of staminodes within the androecium. Given its known restricted distribution and small population, the species should be considered Critically Endangered (CR) as per the Red List Criteria of the International Union for the Conservation of Nature.

Key words: *Assonia*, breeding system, conservation, island, IUCN, Mascarenes

Introduction

Dombeya Cavanilles (1787:121) is one of the most diverse genera of Malvaceae, with ca. 215 species (Skema & Dorr 2010). The diversity of the genus is concentrated in Madagascar with approximately 187 species (Arènes 1959a). *Dombeya* is also distributed on oceanic islands of the Indian Ocean, particularly on those of the Mascarene Archipelago. The three main oceanic islands of the Mascarenes (Mauritius, 8–10 My; La Réunion, 2–3 My; Rodrigues 8–10 My, Cheke & Hume 2008), are home to 14 species of *Dombeya* (Friedmann 1987) with a high rate of endemism (13 endemic species). Among these 14 species, one is distributed across the Mascarenes, two are found on both Mauritius and La Réunion, one is endemic to Rodrigues, one on Mauritius and nine are only found on La Réunion. *Dombeya* is an important component of the Mascarene ecosystems, especially on La Réunion. Occurring in each of the main habitat types of the archipelago from dry to tropical mountain cloud forests, *Dombeya* are particularly abundant in the latter vegetation where they are a major and structuring component of the canopy (Cadet 1980, Blanchard 2000).

In addition to *Dombeya*, the Mascarene archipelago hosts three other genera of Dombeyoideae, *Astiria* Lindley (1849: 151; one species), *Trochetia* De Candolle (1823: 106; six species) and *Ruizia* Cavanilles (1787: 117; one species), all endemic to the archipelago. Two recent phylogenetic studies have shown that the taxonomical boundaries among these different dombeyoid genera are uncertain (Le Péchon *et al.* 2009, 2010). However, several morphological features allow distinction of these genera (Table 1).