



## ***Adenia barthelatii* (Passifloraceae), a new endemic species of Mayotte and its phylogenetic status within the genus *Adenia***

MARC PIGNAL<sup>1\*</sup>, ROXANA YOCKTENG<sup>1</sup>, DAVID J. HEARN<sup>2</sup> & JEAN-NOËL LABAT<sup>1,+†</sup>

<sup>1</sup> MNHN Paris, Département Systématique et Evolution, UMR 7205 MNHN/CNRS Origine Structure et Evolution de la Biodiversité, 16 rue Buffon, C.P. 39, 75231 Paris cedex 05, France;  
email: pignal@mnhn.fr; yockteng@mnhn.fr

<sup>2</sup> Department of Biological Sciences, Towson University, 8000 York Road, Baltimore, MD 21252, USA; email: DHearn@towson.edu

\*Corresponding author: pignal@mnhn.fr

### **Abstract**

Morphological characters support the description of a new species of Passifloraceae from Mayotte Island: *Adenia barthelatii* M. Pignal, Yockteng, Hearn & Labat. Morphological and molecular data suggest that *A. barthelatii* belongs to the ‘warty-gland’ subclade of Clade V defined by Hearn elsewhere. Since the warty-gland clade is restricted to the Malagasy region we suggest a Malagasy origin of this Maorian species of *Adenia*.

**Key words:** Passifloraceae, *Adenia*, Comoro Archipelago, Mayotte

### **Résumé**

L'étude des caractères morphologiques permet la description d'une espèce nouvelle de Passifloraceae de l'île de Mayotte: *Adenia barthelatii* M. Pignal, Yockteng, Hearn & Labat. Les analyses morphologiques et moléculaires suggèrent que *Adenia barthelatii* appartient au clade V (« à glandes verruqueuses ») défini par Hearn auparavant. En raison du fait que le clade à glandes verruqueuses est restreint à la région malgache, Ces résultats laissent postuler une origine malgache de cette espèce mahoraise d'*Adenia*.

**Mots clés :** Passifloraceae, *Adenia*, Archipel des Comores, Mayotte

### **Introduction**

Mayotte is a member of the Comoro Archipelago and located in the northern Mozambique Channel in the Indian Ocean, between northern Madagascar and northern Mozambique. It consists of the main island, Grande-Terre, a smaller island, Petite-Terre (or Pamanzi), and several islets. Since 1996 the Muséum national d'Histoire naturelle de Paris and the Service Environnement et Forêt of DAF-Mayotte have conducted extensive plant inventories on the three main islands in order to increase our knowledge of this insular flora.

In the Comoros Archipelago, much of the original vegetation has been destroyed, and only 5% of the original vegetation remains in Mayotte (Lowry et al. 1999, Pascal & al. 2002, Labat et al. 2004). As most plant species of this island are endemic and threatened, *in situ* and *ex situ* measures for their protection should be taken (Pascal et al. 2002, Pascal 2002). Although floristic surveys are incomplete and vast tracts of habitat have been lost, multiple new species from many plant families have been discovered recently: Sapotaceae (Labat et al. 1997), Oleaceae (Labat et al. 1999), Salicaceae and Achariaceae, under Flacourtiaceae (Hul et al. 1999), Fabaceae–Caesalpinioideae (Labat & Pascal 1999), Araliaceae (Lowry et al. 1999), Malvaceae, under