



Nyctaginaceae: A taxonomic treatment for the Flora of Namibia

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Abstract

A taxonomic treatment of the Nyctaginaceae for the Flora of Namibia is presented, including the description of the family, keys to the genera and species, nomenclature, descriptions of all generic and infrageneric taxa, as well as data about the habitat, elevation, flowering time and distribution. Namibia is the centre of diversity for the family in southern Africa and is represented by four genera and 17 species distributed throughout the country. The names *Mirabilis divaricata*, *Boerhavia atomaria*, *B. viscosa*, *B. coccinea* f. *parcehirsuta* and *B. stellata* are typified on specimens respectively preserved at BM, PH, G, B and an illustration.

Key words: Africa, *Boerhavia*, *Commicarpus*, *Mirabilis*, *Phaeoptilum*, typification

Introduction

The family Nyctaginaceae Juss. includes about 30 genera and 300–400 species (see e.g., Bittrich & Kühn 1993, Douglas & Manos 2007) that are distributed throughout the tropical and subtropical regions of the world (Bittrich & Kühn 1993, Jordaan 2000), especially in the Neotropics and the arid territories of western North America (Douglas & Spellenberg 2010). Namibia is the centre of diversity for this family in southern Africa with 4 genera and 17 species (Makwarela 2003).

Materials and Methods

Living plants and specimens from the herbaria BLFU, BOL, J, NGB, NU, PRE, PRU, PUC, SAM and WIND (acronyms according to Thiers 2015+) were examined.

The following morphological characters were measured: length and width of the leaves, length of the petiole, length of the peduncle, pedicel, upper and lower portions of the perianth, stamens and ovary, and mean length and width of anthocarps (ten specimens per species and three anthocarps per specimen). Fresh floral material was collected *in situ* and preserved in 4% paraformaldehyde and flowers taken from herbarium specimens were rehydrated for 10 minutes in boiling water. The terminology of the morphological characters follows Hickey & King (2000).

Distribution and habitat data were obtained from herbarium labels as well as observations in the field. Distribution maps were generated using ArcView GIS 3.2a.

Taxonomic treatment

Nyctaginaceae Jussieu, *nom. cons.*

Type (designated by Larsen 1989: 108):—*Mirabilis jalapa* Linnaeus