*Phytotaxa* 38: 29–35 (2011)
www.mapress.com/phytotaxa/
Copyright © 2011 Magnolia Press

*Article*

ISSN 1179-3155 (print edition)
**PHYTOTAXA**
ISSN 1179-3163 (online edition)

# New taxa in *Diplusodon* (Lythraceae) from Brazil

TACIANA B. CAVALCANTI
*EMBRAPA Genetic Resources and Biotechnology, Parque Estação Ecológica, Final W5 Norte, CP 02372, CEP 70.770-900, Brasília, DF, Brazil. E-mail: taciana@cenargen.embrapa.br*

## Abstract

Two new species and one new variety of *Diplusodon* (Lythraceae) are described and illustrated from Brazilian collections and categorized based on the Red List of threatened species: *Diplusodon bahiensis*, *Diplusodon micromerus*, and *D. kielmeyeroides* var. *macrocalyx*. A key to the varieties of *Diplusodon kielmeyeroides* is provided.

**Key words**: Cerrado vegetation, Brazilian savanna, endemism

## Introduction

*Diplusodon* Pohl (1827: 150) is the second largest genus in Lythraceae, with 83 species and 14 varieties (Cavalcanti & Graham 2010). It is endemic to the Brazilian savannas (Cerrado biome), with the exception of two taxa occurring in Bolivia. They are shrubs or subshrubs with showy, 6-merous, actinomorphic flowers and floral tubes on which the sepals are alternate with conspicuous epicalyx segments. Their capsular fruits (with winged seeds) are unique in the family by having a bipartite placenta with lunate septa. Species of *Diplusodon* have characteristics that are typical for plants in the Cerrado vegetation. They loose some of their leaves during the reproductive stage and are perennial by means of a resistant subterranean organ called the xylopodium, an adaptation to seasonal drought and fire.

In *Diplusodon* there is a high degree of endemism among the species restricted to specialized micro-habitats in mountains with rough topography, at 1,000–1,600 m elevation, where they grow on sandy soils among rocky outcrops and slopes. Species isolation has been a significant factor in producing morphological novelties in the group. Many species of *Diplusodon* are threatened because of this restricted distribution. The species occurring in flatter areas of the Cerrado biome are especially threatened due to exploitation for agriculture and pasture. The areas with natural Cerrado vegetation are disappearing rapidly, and the conservation units currently established in the Cerrado biome are small.

New taxa are described here as part of an ongoing effort to revise the genus. The study adds two new species and one new variety to other recent additions of *Diplusodon* discovered in the Brazilian flora (Cavalcanti & Graham 2005, Cavalcanti 2007). Categories and criteria of IUCN (2001) are applied to the new taxa and their conservation status is registered.

## Materials and methods

Herbarium specimens were examined at ALCB, CEN, CEPEC, HUEFS, K, MO, NY, SPF and W. Specimens were identified using the monograph of Koehne (1903) and a more recent study by Lourteig (1989) that formed the basis of all taxonomic work on the genus that followed. Extensive field work has been conducted during the ongoing revision of the genus, through which about 90% of *Diplusodon* species were collected and observed in nature. The threatened categories of the IUCN Red List (IUCN 2001) were used to classify the new taxa according to the degree of threat.

*Accepted by Pieto Delprete: 21 Oct. 2011; published: 23 Dec. 2011*