



New species in *Diplusodon* (Lythraceae) from Brazil

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Abstract

Six new *Diplusodon* species from Brazil are described, illustrated and compared with related species. They include *Diplusodon rotatus*, a novelty from savannas with rocky soils of Maranhão state, *D. stellatus*, *D. venosus* and *D. vittatus* from the mountains of Goiás state, *D. verruculosus* from the campos rupestres mountains of Minas Gerais state, and *D. xiphodon* from campos rupestres mountains of Bahia.

Key words: Brazilian savanna, Cerrado biome, endemism

Introduction

The genus *Diplusodon* Pohl (1827: 150) is the second largest genus in the Lythraceae, with 102 species occurring in Brazilian savannas (Cerrado biome), including two taxa in Bolivian savannas (Cavalcanti & Graham 2005; Cavalcanti 2015). 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 have a bipartite placenta with lunate septa, unique in the family, and the seeds are winged.

In *Diplusodon* there is a high degree of narrow endemism among the species restricted to specialized microhabitats, in mountains at 1,000–1,600 m elev. with rough topography, where they grow on sandy and rocky soils among rocky outcrops and slopes. The species are isolated by geographical barriers and climate in campos rupestres, the mountains of the east and midwest of the country (Cavalcanti 2007; Cavalcanti & Noronha 2009; Cavalcanti *et al.* 2013). Species isolation has been a significant factor in production of morphological novelties within the group (Cavalcanti 1995, Inglis *et al.* 2009).

Many species of *Diplusodon* are threatened because of their restricted distributions. The species occurring in flat areas of the Cerrado biome are especially threatened because of exploitation for agriculture and pasture. The cerrado vegetation areas are disappearing rapidly, and the conservation units established within the Cerrado biome are few and small.

Six new species are described here as part of an ongoing effort to revise the genus. They added to other recent additions to *Diplusodon* discovered in the Brazilian flora (Cavalcanti 2011).

Materials and methods

The specimens were identified based on the generic monograph of Koehne (1903) and a study by Lourteig (1989) that formed the basis of all following taxonomic work on the genus. Extensive field work has been conducted during the ongoing revision of the genus, through which about 90% of the *Diplusodon* species were collected and observed in nature.