



A new endemic species of *Manihot* (Euphorbiaceae s. str.) from the Chapada dos Veadeiros, Goiás, Brazil

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Abstract

A new species from the grasslands of the Chapada dos Veadeiros, *Manihot kalungae*, is described and illustrated herein. Based on morphological traits, the narrowly endemic species is proposed to belong to *Manihot* sect. *Peltatae*, a remarkable group of the genus due to the peculiar morphology of the leaves. A key to the species of *Manihot* sect. *Peltatae* is provided.

Key words: Diversity, endemism, *Manihot* sect. *Peltatae*, wild cassava

Introduction

Manihot Miller (1754) is a monophyletic genus (Chacón *et al.* 2008, Duputié *et al.* 2011) with over 100 species distributed in the Neotropical region. The genus has its center of diversity in Central Brazil, where ca. 50 species are found, 40 of them in the state of Goiás, in the Cerrado region.

The taxonomic knowledge of *Manihot* species from the state of Goiás is incipient, probably because the genus shows a tremendous plasticity of leaf morphology associated with a well conserved floral and fruit morphology (Duputié *et al.* 2011), which complicates the identification of the species. Therefore, taxonomic studies of *Manihot* species that occur in the state of Goiás are necessary.

The Chapada dos Veadeiros is located in the northern part of the state of Goiás and is home of several different types of vegetation (e.g. grassland, “cerrado rupestre,” cerrado s. str., “veredas,” clear grassland, scrubland, gallery forest, mesophytic deciduous forests, and semi-deciduous forests), with high floristic diversity, including several endemic species (Simon & Proença 2000, Munhoz & Felfili 2006).

Recent field expeditions to the Chapada dos Veadeiros, as part of the project “Inventory and diversity of Euphorbiaceae s. str. in the Cerrado of Central Brazil”, have resulted in the discovery of some new species. One of these, *Manihot kalungae*, is described herein, and its affinities with species of *Manihot* section *Peltatae* Pax (1910: 91) are discussed.

Material and methods

As part of the taxonomic study of the genus *Manihot* in the Chapada dos Veadeiros region, field expeditions were conducted from October 2011 until March 2013 and collections of herbaria CEN, UB, and UFG (acronyms according to Thiers 2010 and onwards). The description of this new species was based on observations of populations in field and herbarium collections. Measurements of vegetative and floral parts were made on