



***Miconia macuxi* (Miconieae, Melastomataceae): a new species from the Amazonian white sand vegetation**

JULIA MEIRELLES¹, MAYARA KRASINSKI CADDAH² & RENATO GOLDENBERG³

¹ Programa de Pós-graduação em Biologia Vegetal, Universidade Estadual de Campinas, Postal Code 6109, 13083-970, Campinas, SP, Brazil. E-mail: jmeirell@gmail.com

² Departamento de Botânica, Universidade Federal de Santa Catarina, Postal Code 476, 88040-900, Florianópolis, SC, Brazil. E-mail: mayara.caddah@gmail.com

³ Departamento de Botânica, Universidade Federal do Paraná, Postal Code 19031, 81531-970, Curitiba, PR, Brazil. E-mail: renato.goldenberg@gmail.com

Abstract

Miconia macuxi is described from the states of Roraima and Amazonas, in northern Brazil, and Atabapo and Amazonas, in southern Venezuela. It occurs in white sand vegetation, and can be recognized by the strongly discolorous leaves with dense stellate trichomes on their abaxial surfaces, secund inflorescences, petal margins with glandular-stipitate trichomes, and white stamens, the antepetalous with the connective with two ventral lobes and a dorsal tooth.

Key words: Brazil, campina, campinarana, Venezuela

Introduction

Miconia Ruiz & Pavón (1794: 60), in its strict sense (Triana 1871, Cogniaux 1891), has about 1,060 species (Goldenberg *et al.* 2013) and is not monophyletic (Goldenberg *et al.* 2008). It belongs to the tribe Miconieae, which in turn is monophyletic, and can be recognized as the Neotropical species of Melastomataceae with fleshy fruits, flowers not subtended by four bracts, stamens with short, unappendaged or only shortly appendaged connectives, and vegetative parts lacking megastyls (Michelangeli *et al.* 2004, Penneys *et al.* 2010). The addition of the other genera from tribe Miconieae is leading it to a broader *Miconia* sensu lato, with about 1,900 species, which comprises the whole tribe and thus will be regarded as monophyletic (Ionta & Judd 2012, Ionta *et al.* 2012, Goldenberg *et al.* 2013, Judd & Ionta 2013, Majure & Judd 2013a–b, Michelangeli & Meier 2013, Gamba *et al.* 2014, Gamba-Moreno & Almeda 2014, Judd & Majure 2014, Majure *et al.* 2014a–c, Michelangeli 2014, Ocampo & Almeda 2014). Either in a strict or in a broad sense, the genus occurs in a wide range of habitats, from Mexico to Argentina and from the sea level to the Andean Páramos (Goldenberg *et al.* 2013).

The new species described here has been only found in white-sand vegetation. White-sand areas are scattered across the Guayana Shield and the Amazon basin, and have nutrient-poor soils with low water retention capacity (Frasier *et al.* 2008). The vegetation types on it are popularly known as “Campinas” and “Campinaranas” and are characterized by sclerophylly, low diversity, and high endemism (Struwe *et al.* 1997, Anderson 1981, Daly & Fine 2011). Their structure greatly varies from grasslands and savannas to scrubs and forests, with a reduced biomass and highly irradiated community (Anderson 1981, Huber 1995, Janzen 1974).

Phylogenetic analyses using molecular data from several morphologically related species place this new species near *Miconia stenostachya* Candolle (1828: 181) and other species with glandular-ciliate petals (Meirelles *et al.*, in prep.). This places the new species in the traditionally circumscribed *Miconia*, more precisely in a group that has been recognized since Cogniaux (1891) as *Miconia* sect. *Miconia* Candolle (1828: 183) subsect. *Seriatiflorae* Naudin (1850: 145).