Physeterostemon gomesii (Melastomataceae): the fourth species of this endemic genus in Bahia, Brazil

ANDRÉ MÁRCIO AMORIM1,2, JOMAR GOMES JARDIM3 & RENATO GOLDENBERG4

1 Universidade Estadual de Santa Cruz, Departamento de Ciências Biológicas. Km 16 rod. Ilhéus-Itabuna, Ilhéus, 45600-970, Bahia, Brazil; email: amorim.uesc@gmail.com
2 Herbarium CEPEC, CEPLAC. Km 22 rod. Ilhéus-Itabuna, Ilhéus, 45600-970, Bahia, Brazil
3 Universidade Federal do Rio Grande do Norte, Departamento de Botânica, Ecologia e Zoologia, Centro de Biociências, Natal, 59072-970, Rio Grande do Norte, Brazil
4 Universidade Federal do Paraná, Departamento de Botânica. Campus do Centro Politécnico, Curitiba, 81531-970, Paraná, Brazil

Abstract

Physeterostemon gomesii is described and illustrated. In addition, a map and a key to all four taxa of this genus are provided. This species can be distinguished from other Physeterostemon species by its non-rhizomatous shrubby habit, 5-merous flowers, 10 stamens, and 3-locular ovary.

Key words: Atlantic Forest, Eriocnema, Miconieae, taxonomy

Introduction

Physeterostemon Goldberg & Amorim (2006: 966) is a genus of Melastomataceae endemic to the Atlantic Forest in Bahia State, Brazil (Goldenberg & Amorim 2006, Amorim et al. 2009). The genus comprises three species that occur within a 110 km north-south axis and an 130 km wide east-west range (Fig. 1): Physeterostemon fiaschi Goldberg & Amorim (2006: 967), P. jardimii Goldberg & Amorim (2006: 967), and P. thomasii Amorim et al. (2009: 324). Physeterostemon is characterized by 6-merous, diplostemonous flowers, a toothed and persistent calyx, inferior ovary, and dry, capsular fruits (Goldenberg & Amorim 2006). The genus has not been formally placed in any of the family’s traditional tribes, but it belongs to a small clade that includes only one other genus (also from eastern Brazil): Eriocnema Naudin (1844: 144). This small clade is sister to the tribe Miconieae (Amorim et al. 2009), which in turn comprises about 1,800 species, all from the Neotropics (Michelangeli et al. 2004, Judd 2007, Goldenberg et al. 2008, Martin et al. 2008, Reginato et al. 2010).

Botanical expeditions with floristic and conservation objectives were undertaken in the Boa Nova National Park in Bahia State in 2013 and a new non-rhizomatous species of Physeterostemon was found, with 5-merous flowers, 10 stamens, and a 3-locular ovary – a unique set of features for this genus.

Taxonomy

Physeterostemon gomesii Amorim & R.Goldenb., sp. nov. (Figs. 1, 2, 3)

Diagnosis:—This species differs from all other species in the genus by its 5-merous flowers, 10 stamens, and 3-locular ovary, as all the other taxa have 6-merous flowers, 12 stamens, and 4-locular ovaries. It differs from Physeterostemon fiaschi in terms of the latter’s fascicled inflorescences covered with trichomes ca. 5 mm long and calyx with outer lobes 4–5.4 mm long. It differs from P. jardimii by its habit (rhizomatous subshrubs) and indumentum (strigose but also glandulose-setose in the former), as well as by the ovary apex (setose in P. jardimii). It differs from P. thomasii in terms of its rhizomatous habit by having young stems and petioles covered with paleaceous trichomes and strongly bullate/foveolate leaves.

Type:—BRAZIL. Bahia: Boa Nova, Parque Nacional de Boa Nova, Fazenda Liberdade, Região da Farofa, BR 030 entre o trecho Boa Nova ao Distrito de Valentim, ca. 5 km de Boa Nova, 14°21′25″S 40°12′46″W, 7 February 2013, fl., fr., A.M. Amorim, 8170, L.H. Daneu & L.C.J. Gomes (holotype CEPEC!, isotypes HURB!, K!, NY!, RB!, UPCB!).

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