



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

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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 Goldenberg & 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 a 130 km wide east-west range (Fig. 1): *Physeterostemon fiaschi* Goldenberg & Amorim (2006: 967), *P. jardimii* Goldenberg & Amorim (2006: 969), and *P. thomasi* 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 fiaschii* 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. thomasi* 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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