



## Two new species of *Eugenia* (Myrtaceae) from the Cabo Frio Center of Plant Diversity, Rio de Janeiro, Brazil<sup>1</sup>

JAIR EUSTÁQUIO QUINTINO DE FARIA<sup>2,4</sup>, FIORELLA FERNANDA MAZINE<sup>3</sup> & CAROLYN PROENÇA<sup>2</sup>

<sup>1</sup> This paper is part of the first author's Ph. D. Thesis.

<sup>2</sup> Programa de Pós-Graduação em Botânica, Instituto de Ciências Biológicas, Universidade de Brasília, C.P. 4457, Cep 70919-970, Brasília, DF, Brasil.

<sup>3</sup> Universidade Federal de São Carlos, campus Sorocaba, Rod. João Leme dos Santos km110, Sorocaba, SP, Brazil.

<sup>4</sup> Corresponding author: [jairquintino@yahoo.com.br](mailto:jairquintino@yahoo.com.br)

### Abstract

Two apparently narrow-endemic species of *Eugenia* are described from the Cabo Frio Center of Plant Diversity in the state of Rio de Janeiro, Brazil. Both present a limited distribution restricted to coastal areas north of Rio de Janeiro. The new species are described and compared with closely related species. Illustrations, distribution maps and conservation status assessments are also provided. *Eugenia gastropogena* and *Eugenia farneyi* are presumably closely related to *Eugenia pyriformis* and *Eugenia malacantha*. *Eugenia gastropogena* can be recognized by its leaves with arched secondary veins not forming a clear marginal vein, subcordate to obtuse leaf bases, petioles 2.1–4.8 mm long, buds 3.5–4 mm long and 2 ovules per locule. *E. farneyi* can be recognized by having leaves with straight secondary veins that form a single marginal vein running 0.7–1.5 mm from the margin, cuneate leaf bases, petioles 4–6.4 mm long, buds 6.2–8.4 mm long, and 10–12 ovules per locule.

**Key words:** Restinga, Armação dos Búzios, IUCN, Threatened Species

### Introduction

*Eugenia* Linnaeus (1753: 470) is the most species-rich genus of the Myrtaceae in Brazil. It occurs in all states and possible habitats as far as we are aware (Sobral *et al.* 2013). The state of Rio de Janeiro is one of the richest in the genus in Brazil: 119 of the 370 species registered for the country (Sobral *et al.* 2013) occur there; this is particularly significant in view of the fact that Rio de Janeiro is also one of the smallest Brazilian states.

The last twenty years have witnessed the description of many new species of *Eugenia* for Brazil (Amorim & Alves 2012; Bünger *et al.* 2013; Faria & Proença 2012; Giaretta & Fraga 2014; Kawasaki & Holst 1994; Lourenço *et al.* 2013; Mazine & Souza 2008, 2009a, 2009b, 2010; Mazine & Faria 2013; Proença *et al.* 2014; Soares-Silva & Sobral 2004; Sobral 2005, 2006, 2008, 2010a, 2010b, 2013; Sobral & Mazine 2010; Sobral *et al.* 2012; Souza & Morim 2008); only two of these—*Eugenia marambaiensis* M.Souza & M.P.Lima (2008: 306) and *Eugenia regia* Bünger & Sobral (Bünger *et al.* 2013: 55)—were from Rio de Janeiro; both, however, are from coastal vegetation.

The Cabo Frio Center of Plant Diversity is an area of low precipitation with a xerophytic flora that shares species with the semi-desertic *Caatinga* scrub and dry forest that occurs in Northeastern Brazil (Araújo & Henriques 1984, Araújo 1997). The Cabo Frio Center of Plant Diversity is embedded within the moist Atlantic forest biome and harbors at least 13 endangered species, most of which are narrow endemics (Martinelli & Moraes 2013).

During an investigation of *Eugenia* sect. *Pilothecium* (Kiaerskou 1893: 21) D.Legrand (1975: 37) specimens of two species that could not be attributed to any known species were found and here described as new.

### Material and methods

Material from ASU, BHCB, BM, CEN, CESJ, CVRD, ESA, ESAL, F, HEPH, HJ, HTO, HUEG, HUTO, HVASF, IAN, IBGE, IPA, K, M, MBML, MG, MO, NY, PEUFR, R, RB, SP, SPF, UB, UEC, UFG, UFP and VIES herbaria were