

A new species of *Eugenia* (Myrtaceae) from north-eastern Brazil

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A new species of *Eugenia* section *Racemosae* (Myrtaceae), *Eugenia brejoensis* Mazine, is described, illustrated and discussed. It is characterized by its pedunculate racemes, with greyish hairs, leaves with yellowish blade on the lower surface, glandular dots impressed to slightly prominent on the upper surface, pendant apex, and flowers with persistent and pubescent bracteoles. *Eugenia brejoensis* is known only from highland humid forests, locally called 'brejo', in the *caatinga* area of Pernambuco State, north-eastern Brazil. © 2008 The Linnean Society of London, *Botanical Journal of the Linnean Society*, 2008, 158, 775–777.

ADDITIONAL KEYWORDS: *caatinga* – Pernambuco State – taxonomy.

INTRODUCTION

Eugenia is the largest genus in Myrtaceae, with c. 500 (Holst, Landrum & Grifo, 2003) to 2000 (Sanchez-Vindas, Holst & Pool, 2001) species, distributed from the south of Mexico, Cuba and the Antilles to Uruguay and Argentina, with a small number of species (c. 60) in Africa (Van der Merwe, Van Wyk & Botha, 2005). Some species, with edible fruits, have been cultivated in tropical and subtropical regions (for example, *Eugenia uniflora* L. and *E. brasiliensis* Lam.). *Eugenia* is also the most species-rich genus in terms of tree species in the ombrophilous dense forest, which surrounds the Atlantic border of Brazil, locally called 'Mata Atlântica' (Oliveira-Filho & Fontes, 2000).

Mazine (2006) undertook a phylogenetic analysis using DNA sequence data, and concluded, with low bootstrap support, that *Eugenia* includes the genera *Hexachlamys* and *Calycorectes*. This circumscription had already been suggested by Landrum & Kawasaki (1997), but without any phylogenetic support. With this new circumscription, *Eugenia* could be recognized by its solid embryo and fused cotyledons, in

addition to the ovary generally with more than seven ovules. Apart from these, the most common characteristics of *Eugenia* are the tetra-merous flowers, with free sepals, well individualized at the flower bud stage, the hypanthium little or not prolonged beyond the summit of the bilocular ovary, which has many ovules per locule.

According to Mazine (2006), *Eugenia* section *Racemosae* can be diagnosed by its flowers exclusively in racemes and/or rarely panicles, with an obvious flower-bearing axis with a pedicel to internode ratio of 2:1 or less. Using these criteria, 59 species of *Eugenia* section *Racemosae* occur in the Neotropics, and 38 of these in Brazil.

This paper is part of the survey of *Eugenia* section *Racemosae* for the *Flora Neotropica Project*.

MATERIAL AND METHODS

This study was based on the literature, field observations of living specimens and consultation with the main Brazilian and European herbaria (BHCB, BM, BR, C, CEN, CEPEC, CESJ, ESA, FI, FUEL, G, G-DC, HRCB, HUEFS, HUEM, IAC, IAN, IBGE, ICN, INPA, K, LE, LINN, M, MBM, MEL, MG, P, R, RB, SP, SPF, SPSF, U, UB, UEC, W).

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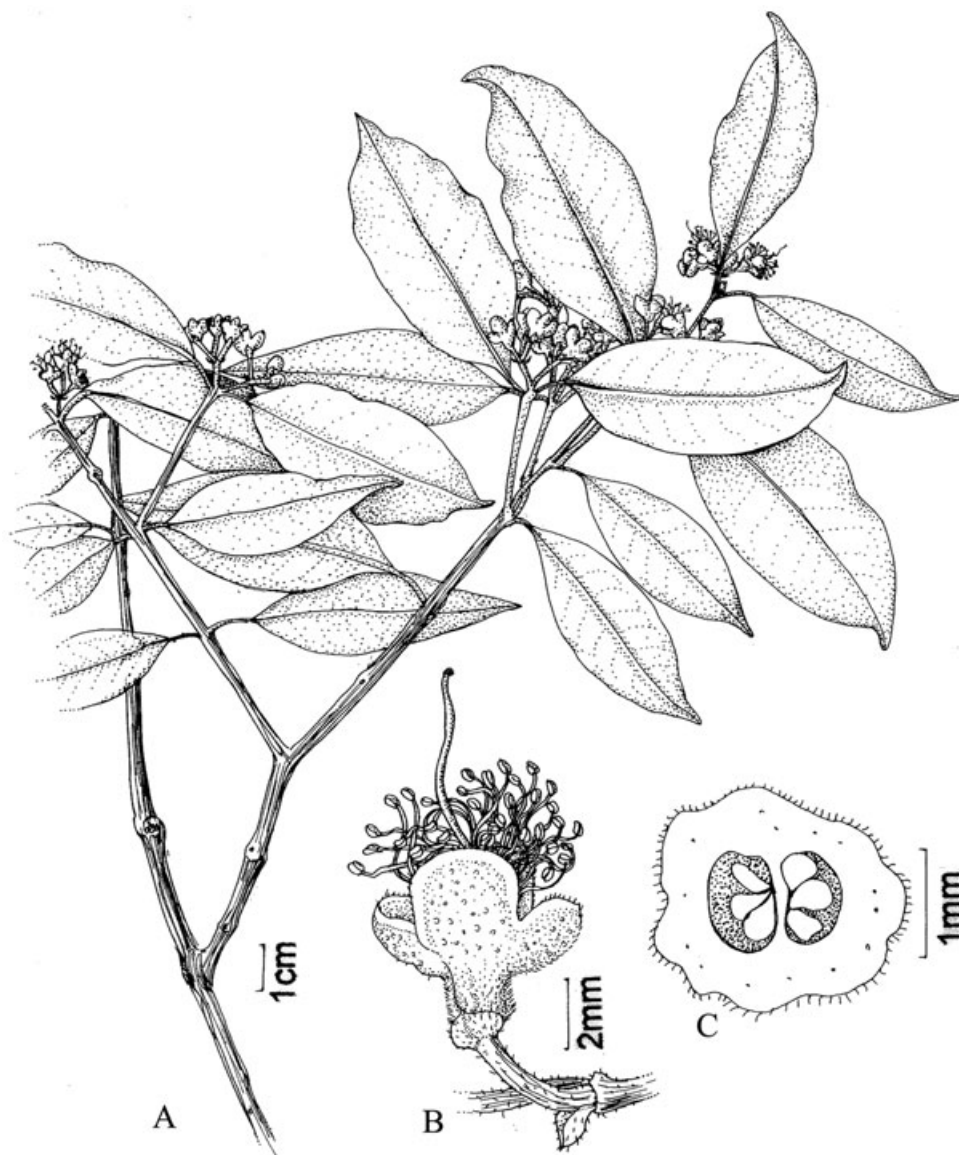


Figure 1. *Eugenia brejoensis* Mazine: A, flowering branch; B, flower; C, medial section of ovary (all drawn from Nascimento *et al.* 504, type).

DESCRIPTION OF THE NEW SPECIES

EUGENIA BREJOENSIS MAZINE, SP. NOV. (FIG. 1)

Diagnosis: Folia apice pendenti. Racemi non corymbosi, pedunculati, pilis griseis. Bracteolae persistentes et pubescentes. Hypanthium pubescens.

Type: BRAZIL, Pernambuco, Brejo da Madre de Deus, Mata do Malhada, 08°11'14"S, 36°24'63"W, 20.iii.2001, L. M. Nascimento 504, Eudes & Adriano (holotype: CEPEC 90011; isotype: CEPEC 89854).

Description: SHRUB to tree, 1.6–11 m, young branches moderately pubescent. LEAF blade elliptic or

elliptic-oblong, 55–102 × 23–37 mm, subcoriaceous, glabrous to subglabrous on both surfaces, hairs simple and dibrachiate, apex acute, pendant, base acute, midvein sulcate, sparse to moderately pubescent on the upper surface, glabrous to subglabrous on the lower surface, lateral veins prominent, marginal vein double, the inner 2.5–4 mm from the margin; glandular dots impressed to slightly prominent; petiole 6–11 mm. RACEME not corymbose, axillary, with two to three pairs of flowers, peduncle 4–10 mm long, rachis 0.3–1.2 cm long, moderate to densely pubescent, hairs greyish. FLOWER BUD 3–4 mm in diameter, floral bracts persistent, 1–1.5 mm long; pedicel 3–5 mm, moderate to densely pubescent,

bracteoles *c.* 1 mm long, connate on the base, apex obtuse, persistent, densely pubescent, with ciliate margin; sepals *c.* 3 mm, apex rounded, moderately pubescent, with margin ciliate, persistent; petals not observed; filaments not observed; hypanthium densely pubescent, hairs greyish, surface smooth, style 6–10 mm, glabrous. FRUIT not observed.

Notes: *Eugenia brejoensis* is part of the group of *Eugenia* section *Racemosae* with long racemes, a pubescent hypanthium and persistent floral bracts. It is morphologically similar to *Eugenia candolleana* DC., from which it differs by the leaves with a yellowish blade on the lower surface, glandular dots impressed to slightly prominent on the upper surface, pendant apex, flowers never in corymbose racemes and with pubescent bracteoles. In addition, the racemes of *E. brejoensis* are pedunculate, with greyish hairs. The bracteoles are persistent, with an obtuse apex.

Geographical distribution and habitat: *Eugenia brejoensis* is endemic to Pernambuco State, being found in highland humid forests, locally called 'brejo', which are forests on 'inselbergs', located in the semi-arid 'caatinga'.

Additional specimens studied: BRAZIL, Pernambuco, Brejo da Madre de Deus, Mata do Malhada, 08°11'14"S, 36°24'06"W, 16.i.2001, A.G. Silva & L.M. Nascimento 362 (CEPEC); 16.i.2001, L.M. Nascimento & A.G. Silva 482 (CEPEC). Buíque, Catimbau, Serra do Catimbau, 08°37'S, 37°10'W, 790 m.s.m., 11.ii.1995, A.G. Silva *et al.* 760 (RB); sítio Pititi, 11.ii.1995, A.P.S. Gomes & E. Inácio 388 (RB); 10.vii.1995, K. Andrade & L.S. Figueiredo 124 (RB); sopé da Serra Branca, 23.i.1997, A.P.S. Gomes & E. Inácio 396 (RB); 3.iii.1997, A. Laurênio *et al.* 427 (RB).

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