

EUGENIA INVERSA (MYRTACEAE), A NEW SPECIES FROM ESPÍRITO SANTO, BRAZIL

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ABSTRACT

Eugenia inversa, a new species from coastal rainforests of the Brazilian state of Espírito Santo, is described and illustrated. The new species is apparently related to the central Brazilian *Eugenia mikanioides*, from which it is distinguished by pilose leaves and flowers, shorter pedicels and triangular, acute calyx lobes.

RESUMO

Eugenia inversa, uma nova espécie da floresta pluvial costeira do estado do Espírito Santo, Brasil, é descrita e ilustrada. Esta espécie é aparentemente próxima a *Eugenia mikanioides*, coletada no Brasil central, da qual se distingue pelas folhas e flores pilosas, pedicelos curtos e lobos do cálice triangulares.

Eugenia is one of the largest genera of the Myrtaceae in Brazil with about 350 native species (Landrum & Kawasaki 1997). The family as a whole comprises about 1000 species in Brazil (Landrum & Kawasaki 1997), and is especially well-represented in the southeastern Brazilian coastal forests, where it is frequently among the most sampled families in floristic inventories (e.g. Mori et al. 1983; Peixoto & Gentry 1990; Thomaz & Monteiro 1997). Among specimens examined from northern Espírito Santo, I have found an unidentified *Eugenia* that I consider as new and describe herein.

Eugenia inversa Sobral, sp. nov. (**Figs. 1, 2**). TYPE: BRAZIL. ESPÍRITO SANTO: mun. Conceição da Barra, Itaúnas, 15 Jan 2005, M. Sobral 9666 (HOLOTYPE: BHCB; ISOTYPES: BRIT, CEPEC, M, MBM, K, MBML, RB, VIES).

Species haec a *Eugenia mikanioides* proxima, a qua foliis et floribus pilosis, pedicellis parvis et lobis calycinis exterioribus triangularibus quam interioribus valde majoribus recedit.

Small tree 3–4 m high. Bark reddish, peeling. Twigs, petioles and abaxial side of blades with indumentum of erect, brownish or grayish trichomes 0.4–0.8 mm long; pedicels and flowers with trichomes to 0.4 mm long. Petioles 1.5–2.5 × 1 mm long. Blades ovate, elliptic or oblong-elliptic, 60–100 × 30–50 mm, deflexed in living plants, discolored when dry, darker adaxially; glandular dots visible abaxially, to 0.1 mm in diameter and about 10 per square mm; apex acuminate to 20 mm; base cordiform, sometimes obtuse; midvein sulcate and occasionally

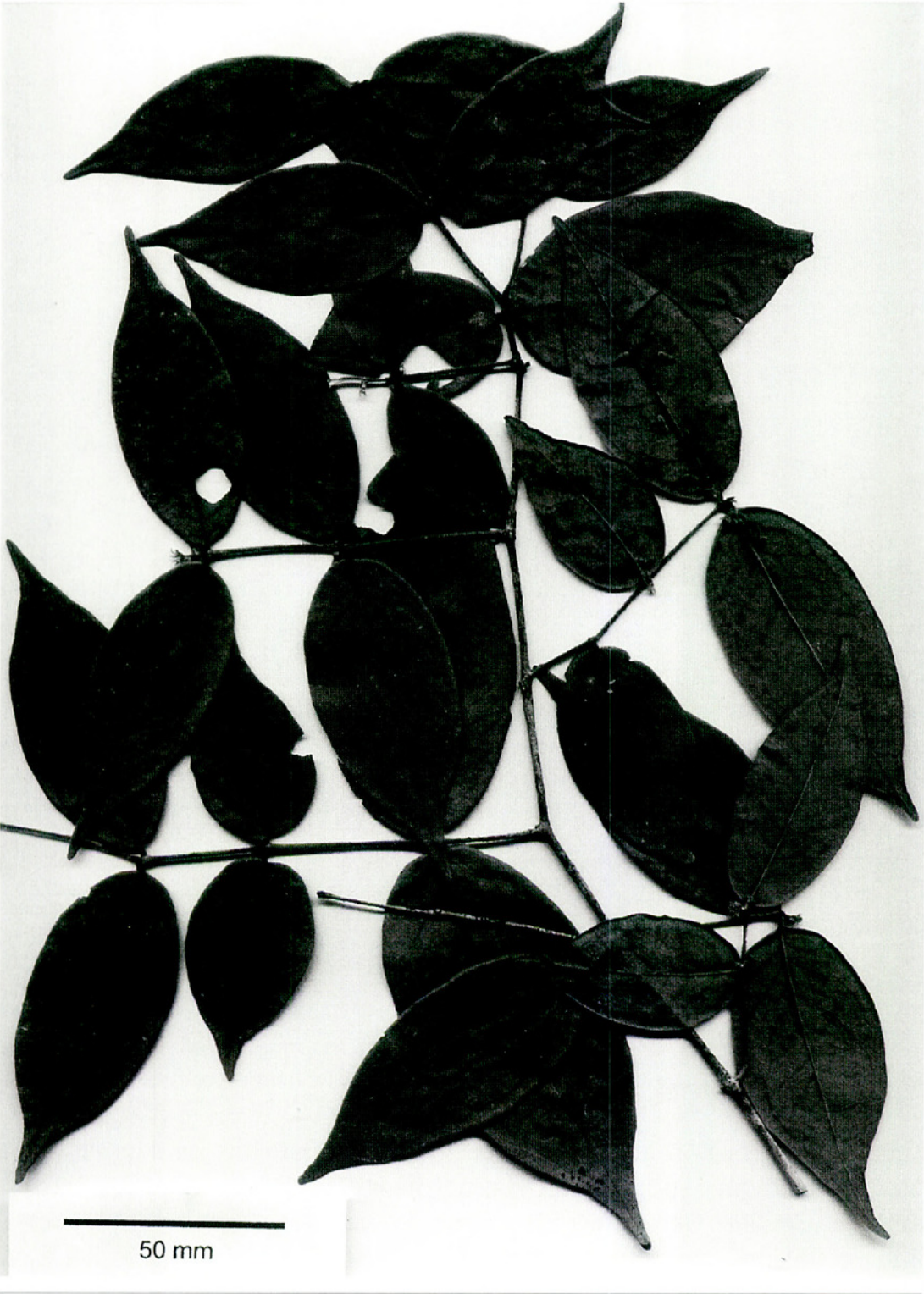


FIG. 1. *Eugenia inversa*. Scanned image of holotype (BHCB).

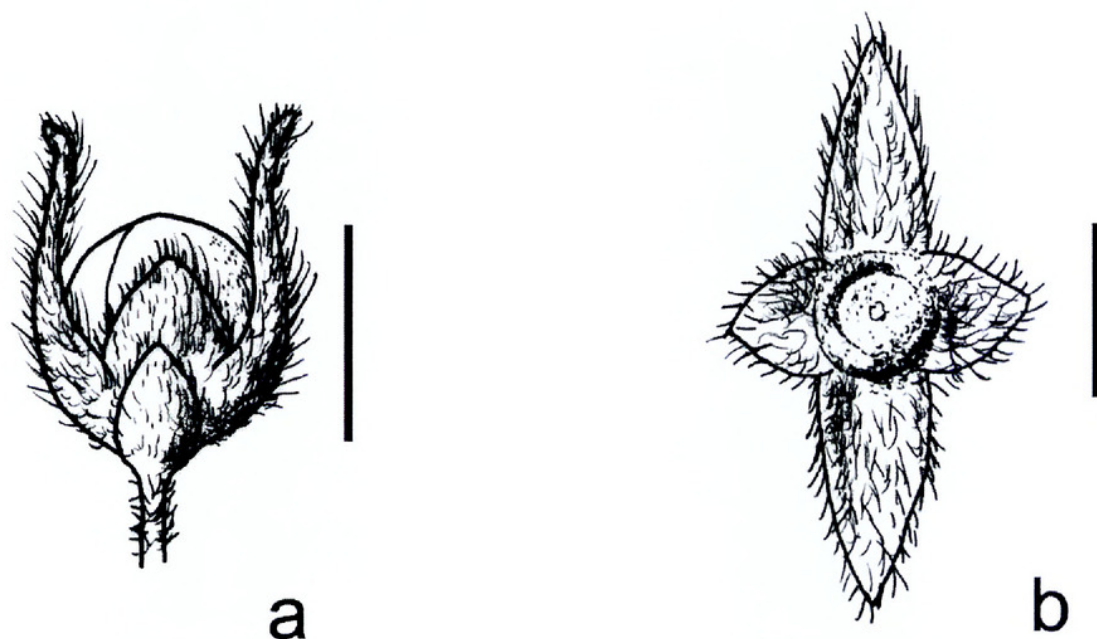


FIG. 2. *Eugenia inversa*. Schematic drawings of flowers: **a**) flower bud; **b**) calyx in an open flower viewed from above. Scales: 2 mm. Both from Sobral 9666 (BHCB).

with trichomes to 0.3 mm long adaxially, salient abaxially; secondary veins 7–9 pairs, faintly visible adaxially, evident and sometimes weakly salient abaxially, leaving the midvein at angles about 70 degrees; paramarginal vein (sensu Carr et al. 1986) 3.5–5 mm from the revolute margin, sometimes a submarginal vein (sensu Carr et al. 1986) 0.8–1 mm from margin. Inflorescences glomeruliform to shortly racemiform (bracteate shoots sensu Landrum & Kawasaki 1997), axillary or terminal, sometimes ramiflorous, the axis 6–10 × 0.5–0.8 mm, with up to 6 flowers (or the flowers occasionally solitary), when axillary sometimes concealed by the leaves when observed from above; bracts triangular, 0.8–1.7 × 0.5–0.8 mm, persisting; pedicels 3–10 × 0.3–0.5 mm; bracteoles triangular, to 1 × 0.8–1 mm, densely covered with trichomes to 0.4 mm long and with 4–6 glandular setae to 0.2 mm long at the adaxial side, below the insertion of the flower; flower buds globose, to 3 × 2 mm, densely pilose; calyx lobes four, pilose on both sides, markedly unequal, the external ones lanceolate-triangular, 2–3 × 0.9–1.3 mm, visibly projected beyond the globe of the petals and sometimes slightly curved outwards in bud, the internal ones triangular, 0.7–1.3 × 1–1.8 mm; petals rounded, 1–1.3 × 1 mm, glabrous or with cilia to 0.1 mm long; stamens 30–40, 1–1.5 mm, the anthers globose, 0.2 × 0.2 mm, without evident glands; staminal ring 1 mm in diameter; style 1.8–2 mm, the stigma punctiform and finely papillose; ovary bilocular, with 1–4 central-basally attached ovules per locule. Fruits elliptic, vinose or black when ripe, sparsely pilose, 10–15 × 8–10 mm, 1-seeded; seed elliptic, with grayish testa; embryo with fused cotyledons and no evident hypocotyl.

Habitat, distribution and phenology.—*Eugenia inversa* is a small tree from restingas, that is, scrubby forests to 10 m high on sandy soils that exist along southeastern Brazilian coast line; presently it is known only for the municipality of Conceição da Barra, in northern Espírito Santo (about 18°30'S, 39°45'W); flowers were collected in January, February and June, and fruits in January, February, June and December.

Conservation status.—According to the criteria proposed by IUCN (2001) for evaluation of conservation status, this species could be considered as an endangered one (EN), since it fits criteria B1 ab(iii), that is, has an estimated range of less than 5000 km² (B1), grows in a severely fragmented habitat and is known from less than five localities (a), and its habitat presents a continuing decline in its extension (b(iii)), since restinga habitats in northern Espírito Santo have been suffering severe damage by anthropic activities such as urban expansion and extensive artificial *Eucalyptus* forestation.

Taxonomic affinities.—This species is apparently related to *Eugenia mikanioides* O. Berg (for description see Berg 1857–1859: 298), from which it can be set apart by the characters in the following key:

1. Leaves and flowers glabrous; pedicels more than 20 mm long; calyx lobes rounded, the internal ones larger than the external ones; plants from savanna formations of Goiás (central Brazil) _____ ***Eugenia mikanioides***
1. Leaves and flowers evidently pilose; pedicels to 10 mm long; calyx lobes triangular, the external ones much larger than the internal ones; plants from coastal rainforests of Espírito Santo _____ ***Eugenia inversa***

Etymology.—The epithet, derived from the Latin word for inverted, is allusive to the different sizes of the calyx lobes of the flowers; in most species of *Eugenia* with unequal calyx lobes, the external lobes are smaller than the internal ones. In *Eugenia inversa* the external lobes are markedly longer than the internal ones.

PARATYPES. **BRAZIL. Espírito Santo:** Conceição da Barra, 26 Feb 1992, O. Pereira 2861 (RB, VIES); 9 Jun 1992, O. Pereira 3461 (RB, VIES); 9 Dec 1992, O. Pereira 4357 (RB, VIES); 15 Jan 2005, M. Sobral 9670 (BHCB, MBM).

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