



A new species of *Erythroxyllum* (Erythroxyllaceae) from the Brazilian Atlantic Forest

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Abstract

Erythroxyllum umbrosum, a new species of *Erythroxyllum* sect. *Archerythroxyllum* (Erythroxyllaceae) of the Brazilian Atlantic Forest, which occurs in submontane forests in the states of Alagoas and Pernambuco, northeastern Brazil, is described and illustrated. It is characterized by having non-striated, reduced stipules that are shortly 3–setose at the apex, a staminal cup longer than the calyx lobes, and an endocarp with cylindrical cross-section. The morphological differences of the new species with related and sympatric species are discussed.

Introduction

Erythroxyllaceae Kunth (1821: 175) includes four genera and about 240 species in tropical areas of the world. Almost all of the species belong to genus *Erythroxyllum* Browne (1756: 278), with greatest diversity in the Neotropical region, where 187 species are recorded, especially in the Andean area and the Amazon Basin (Plowman & Hensold 2004, Heywood 2007). In Brazil, 115 species of the genus are recognized of which 60 are cited to the Atlantic Forest (Loiola 2013).

Erythroxyllum is characterized as glabrous shrubs or small trees with alternate leaves, and intrapetiolar stipules. The flowers are dichlamydeous, dialypetalous, 5-merous, and heterostylous; the petals are deciduous with ligular appendages on the adaxial surface; the styles (3) can be free or connate at the base, the ovary has 3 carpels and locules, and the fruits are drupaceous (Plowman & Berry 1999). In the classification proposed by Schulz (1907) for *Erythroxyllum*, *E.* sect. *Archerythroxyllum* Schulz (1907: 69) has the greatest number of taxa (c. 60 species), of which most occur in Brazil. The species of this section are characterized by having non-striated stipules and hermaphroditic flowers with free styles.

During studies with Erythroxyllaceae from the Atlantic Forest of northeastern Brazil, a new species of *Erythroxyllum* from submontane forests was found. It belongs to *E.* sect. *Archerythroxyllum* and is described and illustrated here.

Erythroxyllum umbrosum Costa-Lima & M.Alves, *sp. nov.* (Fig. 1)

It differs from *Erythroxyllum santosii* Plowman (1987: 25) by the smaller stipules (0.4–1.2 mm vs. 3–4 mm long), larger pedicels (2.7–5 vs. 1.5–2 mm long), number and arrangement of bracteoles (bracteoles 2, distichous vs. numerous, spirally arranged), shape of calyx lobes (broadly triangular vs. lanceolate), and relationship of staminal cup × calyx lobes (longer vs. shorter).

Type:—BRAZIL. Pernambuco: Municipality Jaqueira, Reserva Particular do Patrimônio Natural de Frei Caneca, 8°42'34"S, 35°50'34"W, elevation c. 780 m, 30 January 2013 (fl, fr immature), J.L. Costa-Lima, B.S. Amorim, E. Pessoa, D. Araújo, S.N. Moreira & M. Chagas 870 (holotype UFP!, isotypes CEPEC!, F!, K!, NY!, RB!).

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