

NEW SPECIES OF *RINOREA* AUBL. (VIOLACEAE) FROM MATO GROSSO STATE, BRAZIL**NILDA MARQUETE FERREIRA DA SILVA**Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, R. Pacheco Leão 915, 22460-030, Rio de Janeiro, RJ, Brasil. nmarquete@jbrj.gov.br**ERIKA VON S. MEDEIROS**Instituto de Pesquisas Jardim Botânico do Rio de Janeiro, R. Pacheco Leão 915, 22460-030, Rio de Janeiro, RJ, Brasil. emedeiro@jbrj.gov.br

RESUMO: (UMA NOVA ESPÉCIE DE *RINOREA* AUBL. (VIOLACEAE) DO BRASIL). Uma nova espécie de *Rinorea* Aubl., *Rinorea machadoi* Marquete & Medeiros do estado do Mato Grosso, Brasil é descrita e ilustrada. Ela pertence à *Rinorea* subgrupo *ovalifolia* Hekking e taxonomicamente é mais afim à *Rinorea ovalifolia* (Britton) Blacke. Uma chave taxonomica para distinguir as espécie do subgrupo *ovalifolia* é apresentada.

PALAVRAS-CHAVE: Violaceae, *Rinorea machadoi*, espécie nova, Brasil, taxonomia.

ABSTRACT: (A NEW SPECIES OF *RINOREA* AUBL. (VIOLACEAE) FROM MATO GROSSO STATE, BRAZIL). A new species of *Rinorea* Aubl., *Rinorea machadoi* Marquete & Medeiros from Mato Grosso state, Brazil is described and illustrated. It belongs to *Rinorea* subgroup *ovalifolia* Hekking and taxonomically its closest relative is *Rinorea ovalifolia* (Britton) Blake. A taxonomic key to distinguish these taxa of subgroup *ovalifolia* is included.

KEYWORDS: Violaceae, *Rinorea machadoi*, new species, Brazil, taxonomy.

INTRODUCTION

Rinorea Aubl. (Violaceae) is a pantropical genus distributed in Tropical America, Africa including Madagascar, India-SE Asia and Australia-Pacific area, with ca. 160 species (Hekking 1988), occurring in the tropical forests, savannas and seasonal forest. This author presents the monograph of *Rinorea* and *Rinoreocarpus* in the Flora Neotrópica with 48 species. In Brazil this genus is represented by 26 species (Souza 2010). Revising the collection of types of the herbarium RB, a new species of *Rinorea* was recognized described and illustrated.

MATERIALS AND METHODS

The species was described and illustrated for the holotype and paratypes and it was chosen the material type by the presence of flowers (two flowers and one buds) in the specimen *O. Machado 398* (RB), because in the flowers are the main characters diagnoses. In the analyzes of the species of *Rinorea deflexa* (Benth.) Blake and *R. pectino-squamata* Hekking, it was used the description of Hekking (1988) and photos of the types.

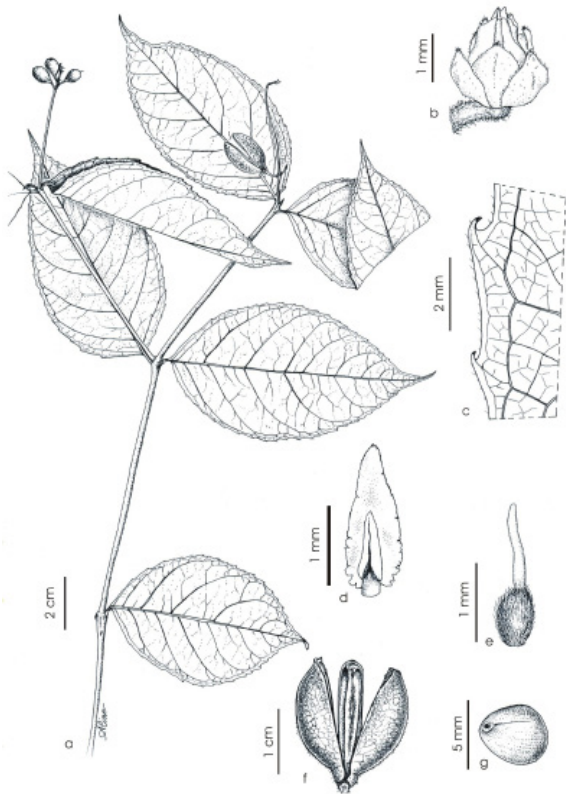


Figura 1 - *Rinorea machadoi*: **A.** Branch with fruit. **B.** flower. **C.** detail of the serrate margin of the leaf. **D.** stamens. **E.** ovary, style and stigma. **F.** capsule. **G.** seed. (A,C,F,G - O. Machado 351; B,D,E - O. Machado 398). Type: Brasil. Mato Grosso: Barra de Tapirapé ("Itapirapé"), bosque, 11.X.1945 (fl), O. Machado 398. (Holotype, RB).

2

RESULTS AND DISCUSSION

Rinorea machadoi Marquete & Medeiros, sp. nov. (Fig. 1).

Species nova a *Rinorea ovalifolia* (Britton) Blake foliis apice longe acuminato vel caudato, marginibus fortiter serratis, staminibus squama connectivi margine crenata ad basim et crenulata apicem versus, ovario hispido et stylo glabro differt.

Tree; branchlets hispidulous. Leaves opposite; petioles 2-5.5 mm, hispidulous; stipules deciduous triangular-linear, 1.5-3 x 0.5-0.6 mm; blades 7-10.1 x 4.6-5.4 cm, ovate, elliptical, papery or membranous, apically elongate acuminate or caudate, margin strongly serrate, basally obtuse or rounded, glabrous on both sides, hispidulous only at margin and nerves; midnerves and lateral nerves adaxially conspicuous and abaxially prominent; venation tertiary conspicuous on both side. Inflorescences terminal racemose, hispidulous; pedicels ca. 1 mm long; bractlets 1-1.2 mm long, triangular. Sepals 1.5-1.7 x 1-1.3 mm, triangular, glabrous, margin ciliate, apex obtuse; petals 2.4-2.5 x 1.2 mm, narrowly elliptical to elliptical, laterally folded

and with apex reflexed, glabrous; stamens with connective scales, 1.8-2 x 0.6 mm, lanceolate, brownish, with margin irregularly crenate at base and crenulate towards the apex; filaments 0.1 x 0.2 mm short; anthers 0.8-1.1 x 0.2-0.3 mm, triangular-lanceolate or lanceolate; ovary 0.8 x 0.8 mm, globose, hispidulous, style ca. 1.8 mm, erect, glabrous; stigma truncate. Capsule with valves 17-18 x 4-5 mm, brownish (dried), hispidulous, reticulate; peduncle fruit ca. 1 mm; seed 5-6 x 4.5-5 mm, broadly obovate, glabrous.

Paratype: Brasil. Mato Grosso: Barra do Tapirapé ("Itapirapé"), Bosque, 28.IX.1945 (fr), O. Machado 351 (RB); Arapuaré, Fazenda Luiz Alves, 26.X.1945 (fr), O. Machado 425 (RB).

Rinorea machadoi is distinguished from the others of subgroup *ovalifolia* by the key below:

1. Branchlets hispidulous and sparsely hispidulous, leaves hispidulous or pilosulous, in margin hispidulous or ciliate, stamens with connective scales 5-8 or more longer times than the filaments. Plants of Brasil, Bolívia and Venezuela.

2. Leaves with apex acuminate, margin subserrate, serrate or rarely subentire, stamens with connective scales with margin entire, ovary pilosulous and style vilosulous near the base.....

.....*R. ovalifolia*

2. Leaves with apex elongate acuminate or caudate, margin strongly serrate, stamens with connective scales with margin irregularly crenate at base and crenulate towards the apex, ovary hispidulous and style glabrous.....

.....*R. machadoi*

1. Branchlets strigose to glabrescent, leaves strigose when young, glabrescent when older, in margin glabrous or subglabrous, stamens with connective scales up to 3 longer times than the filaments. Plants of Ecuador and Guiana Francesa.

3. Flowers with petals narrow-elliptic to ovate, ciliate in margin, stamens with connective scales narrow deltoid, with margin erose at base and apex suberose. Plant of Ecuador.....

.....*R. deflexa*

3. Flowers with petals ovate, sparsely ciliate in margin, stamens with connective scales ovate, with margin pectinate at base and apex erose. Plant of French Guiana.....

.....*R. pectino-squamata*

Rinorea machadoi belongs to the subgroup *ovalifolia* (Hekking, 1988), for the symmetrical base of the leaf, venation tertiary reticulate; inflorescence racemose; flowers and fruits pedicellate; ovary globose, different form of the style and hairy. These subgroups of Hekking don't have hierarchical value in agreement with ICBN (McNeill *et al.*, 2006), but they help in the understanding of the different species of the genus.

The described species is more narrowly related with *R. ovalifolia* (Britton) Blake, differing of this for the leaves of apex acuminate or cauda-

te (vs. acuminate), margin strongly serrate (vs. subserrate, serrate or rarely subentire), connective scales with margin irregularly crenate at base and crenulate towards the apex, (vs. entire), ovary hispidulous (vs. pilosulous) and glabrous style (vs. pilosulous near the base).

Rinorea machadoi is restricted of Barra of Tapirapé and Araguaia regions, from state Mato Grosso, while to *R. ovalifolia* it is distributed thoroughly in Bolivia, Venezuela and Brazil, in the states of Amazonas, Acre, Roraima, Rondônia, Maranhão, Tocantins, occurring in savanna and gallery forest or seasonal forest (Souza & Souza 2003). It is found with flower and fruit in October and in fructification in September.

This species was published by Othon Machado (1954) as *Rinorea catuloana nomen nudum*, in the literature of Conselho Nacional de Proteção aos Índios, when he elaborated a study on the plants of central Brazil. In agreement with ICBN (Neil et al, 2006) Recommendation 23 A (i) and Recommendation 34 A, this epithet was not adopted. The epithet adopted is a homage Othon Machado, researcher of the Botanical Garden of Rio de Janeiro and teacher of University of Medicine and Drugstore (UFRJ) in the decade of 40.

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