



## Two new species of *Dichorisandra* (Commelinaceae) from Rio de Janeiro and comments on the two species included in Vellozo's "Flora Fluminensis"

LIDYANNE YURIKO SALEME AONA-PINHEIRO<sup>1</sup>, VOLKER BITTRICH<sup>2</sup> & MARIA DO CARMO E. AMARAL<sup>3</sup>

<sup>1</sup>Centro de Ciências Agrárias, Ambientais e Biológicas, Universidade Federal do Recôncavo da Bahia, Campus Universitário, Rua Rui Barbosa, 710, Centro, 44380-000, Cruz das Almas, BA, Brazil; e-mail: [lidyanne.aona@gmail.com](mailto:lidyanne.aona@gmail.com)

<sup>2</sup>Rua Dr. Mario de Nucci 500, 13083-290 Campinas, SP, Brazil

<sup>3</sup>Departamento de Biologia Vegetal, Instituto de Biologia, Caixa Postal 6109, Universidade Estadual de Campinas - UNICAMP, 13083-970, Campinas, SP, Brazil

### Abstract

Two new species of *Dichorisandra* collected in Rio de Janeiro state are described based on studies in the field, herbarium specimens and cultivated plants. *Dichorisandra odorata* can be distinguished by its small stature, leaves congested at the apex of the stems, with the lamina densely pilose on both sides, fragrant flowers (unusual for the genus), six anthers with pilose connectives and dehiscent by an apical pore; *Dichorisandra nana* resembles *D. thyrsiflora* by the presence of six yellow anthers dehiscent by apical pores, however it differs being smaller, reaching only 30 cm tall, and by the position of the stamens in relation to the petals. Illustrations of the species, comparisons with species looking morphologically similar, discussion of the diagnostic characters, as well as their conservation status are presented. Vellozo's *Flora Fluminensis* includes two names that belong to *Dichorisandra*, both treated under the genus *Convallaria*. The first one, *C. diffusa*, is a synonym of *D. hexandra* while the other, thought by Vellozo to be *C. racemosa* (= *Maianthemum racemosum*), is in fact *D. thyrsiflora*.

**Keywords:** Flora of Brazil, Atlantic rain forest, *Dichorisandra*, Commelinaceae, Flora Fluminensis

### Resumo

Duas novas espécies do gênero *Dichorisandra* provenientes do estado do Rio de Janeiro são descritas com base em estudos de campo, material herborizado e cultivado. *Dichorisandra odorata* pode ser identificada pelo pequeno porte, folhas congestionadas no ápice com lâminas densamente pilosas em ambas as faces, seis anteras com conectivos pilosos, deiscentes por um único poro apical e flores fragrantas; *Dichorisandra nana* assemelha-se a *D. thyrsiflora* pela presença de seis estames amarelados com anteras deiscentes por um único poro apical, porém difere desta pelo porte pequeno, alcançando apenas 30 cm alt., e pela posição dos estames em relação à corola. São apresentadas ilustrações e comparações com espécies semelhantes e feitas discussões sobre caracteres diagnósticos e o status de conservação das novas espécies. A obra *Flora Fluminensis* de Vellozo inclui dois nomes que pertencem a *Dichorisandra*, ambas tratadas como espécies de *Convallaria*. A primeira espécie, *C. diffusa*, é um sinônimo de *D. hexandra*, enquanto a outra, considerada por Vellozo como sendo *C. racemosa* (= *Maianthemum racemosum*), é de fato *D. thyrsiflora*.

### Introduction

Commelinaceae comprises 42 genera and ca. 720 species (Govaerts and Faden 2011). Diversity centers for the family can be recognized in Brazil with 50 of 54 species of *Dichorisandra* Mikan (1820: 1) (Aona, 2008), in India with 27 of 54 species of *Murdannia* Royle (1839: 403) (Govaerts and Faden 2011), in Africa with 57 of 62 species of *Aneilema* R. Brown (1810: 270) (Faden 1991) and Asia with 170 species of *Commelina* Linnaeus (1753: 54) (Govaerts and Faden 2011).

The family includes herbs with more or less fleshy leaves, erect or decumbent habit, rarely scandent, usually terrestrial, but occasionally rupicolous, saxicolous or emergent aquatic plants, with just two genera being exclusively epiphytic, *Belosynapsis* Hasskarl (1871: 54) and *Cochliostema* Lemaire (1859: 217) (Faden 1985). The leaves are simple, alternate, distichous or whorled; the sheath is closed at base. Inflorescences are terminal, axillary, basal or

incorrect, with *D. thyrsiflora* occurring mainly in the state of Rio de Janeiro in coastal vegetation with marine influence ('restingas'), and only punctual collections in Bahia.

Mikan (1820), when describing *D. thyrsiflora*, does not mention the type material. The presumed type specimen of *D. thyrsiflora* in the Vienna herbarium of the Natural History Museum (W) was most probably destroyed in World War II ([http://www.nhm-wien.ac.at/en/research/botany/collections/lost\\_families](http://www.nhm-wien.ac.at/en/research/botany/collections/lost_families)). Seubert (1855) mentions collections of Mikan and Pohl of *D. thyrsiflora* from Rio de Janeiro, but without giving any details. It is well known, however, that the specimens of the Austrian scientific expedition to Brazil, in which Mikan and Pohl participated, were deposited in Vienna. As no duplicates of the respective collections of Mikan and Pohl are known, it has to be assumed that the original herbarium material used by Mikan for his description of *D. thyrsiflora* is lost. However, in the protologue Mikan provides a detailed description of *D. thyrsiflora*, and together with an illustration, the main features described above are represented. For these reasons, the illustration of the protologue of *D. thyrsiflora* is here proposed as the lectotype.

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