

NOTES ON GEOGRAPHIC DISTRIBUTION

Plantae, Liliopsida, Arales, Araceae, *Dracontioides desciscens*, *Lemna aequinoctialis* and *Montrichardia linifera*: Distribution extension and first records for state of Sergipe, Brazil

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The state of Sergipe is located in the east of Brazilian northeastern, with an area of 21,910 km², 75 municipalities and approximately 1,7 million inhabitants. The flora of Sergipe occurs in different types of vegetation and although it is in a fairly advanced stage of degradation it has been little studied. Among the 23 families of monocots that occur in the state, Araceae stand out for its wide variety of forms of life and habitats, with some terrestrial species, living directly on the soil or in crevices between rocks, while others are aquatic fixed or floating. About 70 % of the species of families are epiphytes, hemiepiphytes or climbing (Grayum 1990). The presence of spathe and inflorescence in spadix, with small and actinomorphic flowers are some of the morphological characteristics of this family, which has 110 genera and about 4000 species distributed worldwide (World Checklist of Selected Plant Families 2008), taking as diversity center the neotropical humid forests (Temponi 2005). In Brazil occur approximately 36 genera and 416 species. For the Northeast region are listed 85 species, distributed in 24 genera.

Twelve species and six genera were recognized for the state of Sergipe (based on data from herbaria of the state and by consulting the literature). Collections performed in 2008 expanded those numbers to 15 species and nine genera. Genera recently registered for the state are *Dracontioides* Engl., *Lemna* L. (genus previously recognized in Lemnaceae but nowadays included among the Araceae) and *Montrichardia* Crueg., all composed exclusively of aquatic species floating or fixed to the substrate of lakes and water courses.

This work brings information of such new occurrences for Sergipe and presents, in a complementary manner, a dichotomous key to the aquatic species of Araceae occurring in the state. The distribution of species was obtained by consulting the databases SpeciesLink (CRIA 2008) and World Checklist of Selected Plant Families (2008), as well as consultations with literature. The maps of distribution show points of occurrence only for Brazil. Details about the occurrence in other regions are commented in the text.

Dracontioides Engl. is a genus distributed in the east of Brazil and has only two species, of which one (*D. salvianii* E. G. Gonç.) was recently described (Gonçalves 2005). In Sergipe *D. desciscens* (Schott) Engl. (Figure 1) occurs in Serra de Itabaiana National Park, in the city of Areia Branca, in a remnant of semi-deciduous Atlantic Rain Forest. This species was found on the banks of the Coqueiro Brook (10°45'15" S, 37°20'50" W), in direct contact with water. This species presents deep rhizome, large sagittal leaves, often fenestrated, variegated petiole with approximately 1 m in length, fornicate purple spathe with white horizontal stripes, bisexual flowers and reniform seeds. The record of *D. desciscens* extends the known distribution of the species, formerly known from states of Espírito Santo, Bahia and Pernambuco (Figure 4). However, few individuals were found in the area, what may indicate that the species is vulnerable in Sergipe, as well as in the state of Espírito Santo (IPEMA 2005). *D. desciscens* is deposited in the collection of herbarium ASE under number 12072.

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Figure 1. *Dracontioides desciscens*. Photo: T. V. P. Dantas.

Lemna L. has been traditionally recognized as belonging to the family Lemnaceae. Recent phylogenetic studies showed that the separation of Lemnaceae and Araceae not finding support, being the species of the first included in Araceae (Souza and Lorenzi 2008). *Lemna* is a cosmopolitan genus composed of small floating aquatic plants which reproduce quickly in waters with much organic matter. In Sergipe was recorded the occurrence of *Lemna aequinoctialis* Welw. (Figure 2), collected next to a fragment of *agreste* forest (region of transition Atlantic Rain Forest-Caatinga) in the municipality of Lagarto (10°51'49" S, 37°37'43" W). *L. aequinoctialis* has semi-cosmopolitan distribution, being found in tropical and subtropical areas with up to 1500 meters of altitude (Pignataro 2007). In Brazil the species is found in almost every states (Figure 4), but yet is little collected because possibly be confused with algae protocists, not arousing the interest of botanists unfamiliar with the group. *L. aequinoctialis* is deposited in the collection of herbarium ASE under number 12600.

Montrichardia Crueg. is a small genus that includes two species distributed in Tropical

America. In Sergipe was verified the occurrence of *M. linifera* (Arruda) Schott (Figure 3), an arborescent herb that can reach up to 6 meters in height and which form dense populations in the beds of water courses. *M. linifera* multiplies itself quickly from rhizomes (Macedo et al. 2005) and therefore is considered a pest by farmers who use the margins of water courses as a resource. Its leaves are large (can measure up to 50 cm long by 25 cm wide), sagittal, ribbed reticulated prominent in abaxial surface. The spathe is completely deciduous after anthesis and the flowers are unisexual and distributed in different areas of spadix. The species was found in the municipality of Santana do São Francisco, growing the banks of the River São Francisco in an area of Caatinga vegetation (10°15'25" S, 36°38'28" W), and in the municipality of São Cristóvão, in a pond created by floods of River Poxim in area of Atlantic Rain Forest (10°58'44" S, 37°09'43" W). *M. linifera* also occurs in many other Brazilian states and French Guiana, Suriname, Venezuela, Colombia, Ecuador and Peru. The species is deposited in the collection of herbarium ASE under numbers 12007 and 12071.

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Figure 2. *Lemna aequinoctialis*. Photo: J. E. Nascimento-Jr.



Figure 3. *Montrichardia linifera*. Photo: J. E. Nascimento-Jr.

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Figure 4. Distribution of *Dracontoides desciscens* (●), *Montrichardia linifera* (●) and *Lemna aequinoctialis* (●).

Identification key for the aquatic species of Araceae that occur in Sergipe

1. Plants fixed to the substrate..... 2
- 1'. Floating Plants..... 3
2. Plants with petiole variegated and up to 1.5 m in height; bisexual flowers..... *Dracontoides desciscens*
- 2'. Plants with 2 to 6 m in height, unisexual flowers..... *Montrichardia linifera*
3. Plants with up to 0.5 cm in diameter..... *Lemna aequinoctialis*
- 3'. Plants with more than 0.5 cm in diameter..... *Pistia stratiotes*

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