



Two new species of *Anthurium* (Araceae) endemic to Rio de Janeiro state, Brazil

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Abstract

Two new species of *Anthurium* endemic to Rio de Janeiro, southeastern Brazil, are described. *Anthurium cronembergerae* and *A. sakuraguianum* occur in humid areas in the Atlantic Forest. Descriptions and illustrations are provided, together with commentary on geographic distribution, ecology, flowering and fruiting phenology and conservation status. Comparisons are made with other similar Brazilian species of *Anthurium* section *Urospadix*, to which the two new species are assigned.

Resumo

Duas novas espécies de *Anthurium* endêmicas do Rio de Janeiro, sudeste do Brasil, são descritas. *Anthurium cronembergerae* e *A. sakuraguianum* ocorrem em áreas úmidas na Floresta Atlântica. Descrições e ilustrações são fornecidas junto com comentários sobre distribuição geográfica, ecologia, período de floração e frutificação e status de conservação. Comparações são feitas com outras espécies brasileiras semelhantes de *Anthurium* seção *Urospadix*, grupo ao qual as duas espécies novas pertencem.

Key words: aroids, section *Urospadix*, Atlantic Forest, taxonomy, southeastern Brazil

Introduction

The neotropical genus *Anthurium* Schott (1829), with approximately 905 species, is the most diverse within Araceae family (Boyce & Croat 2012). *Anthurium* species are distributed from northern Mexico and the Lesser Antilles to southern Brazil and northern Argentina and Uruguay, at low to medium elevations, with the highest diversity in Panama, Colombia and Ecuador (Mayo *et al.* 1997). In Brazil, they occur in all regions, with about 130 species total, 102 endemic to Brazil (Coelho *et al.* 2014).

Anthurium is divided into 19 sections (Croat & Sheffer 1983) and the new species described here belong to *Anthurium* sect. *Urospadix*, proposed by Engler (1878) and recently reviewed, in part, by Coelho *et al.* (2009). This group is concentrated in eastern Brazil and is characterized by leaf blades usually lanceolate with brochidodromous venation, and numerous primary lateral and interprimary veins (Temponi & Coelho 2011). This section has been the subject of significant revisionary studies in recent years, but new species are still being discovered in the Atlantic Forest region (Coelho & Catharino 2008, Gonçalves & Jardim 2009, Catharino & Coelho 2010, Gonçalves 2011, Temponi & Coelho 2011, Gonçalves 2012).

Materials and methods

Samples recently collected in various localities in the Rio de Janeiro state, as well as herbarium collections from RB (Rio de Janeiro Botanical Garden), acronym according to Thiers (2014), were studied and compared.

Descriptions were based in the herbarium collections and live specimens cultivated at the Rio de Janeiro Botanical

Etymology:—The specific epithet “*sakuraguianum*” was given in honor of the researcher Cassia Monica Sakuragui, who has advised Brazilian researchers, including the first author, in the family Araceae studies.

Distribution:—Endemic to the Serrana region of the Rio de Janeiro state, where it occurs in the municipality of Nova Friburgo, in high-altitude rain forest around 700 m elevation. Shade-tolerant and rare.

Conservation:—*Anthurium sakuraguianum* is a rare species. It has been found only twice, therefore its preliminary IUCN conservation rating is “Data Deficient”.

Paratypes:—Brazil. Rio de Janeiro: Nova Friburgo, Lumiar, 2002, fl., *P. Pinto* 39 (RB).

Discussion

Anthurium cronembergerae and *A. sakuraguianum* differ from most species of *Anthurium* sect. *Urospadix* mainly by their erect stems with basal internodes usually longer than 0.8 cm. This combination of characters are exhibited only by very few species of this group.

Anthurium cronembergerae is related to *A. intermedium*, which has a cataphylls green to brown, flattened to sulcate petiole with adaxially acute margins, primary lateral veins only printed abaxially and the spathe forming an acute angle with the peduncle at their junction. In contrast, this new species has cataphylls straw-like, a sulcate petiole with adaxially obtuse margins, primary lateral veins strongly imprinted on the adaxial surface of the leaf and the spathe usually forming a right angle with the peduncle at their junction. Both occur in the same geographic area in the Rio de Janeiro state, but *A. intermedium* occurs in humid areas in the Atlantic Forest to Bahia until São Paulo state

On the other hand, *A. sakuraguianum* is similar to *A. regnellianum*, from which it differs by having entire cataphylls and prophylls at the stem apex and base, the petiole slightly asperous, the internal basal vein straight and giving rise to the submarginal collective vein, and the spathe usually forming an acute angle with the peduncle at their junction. They occur in different geographical areas, *A. regnellianum* occurs in the São Paulo state and *A. sakuraguianum* in the Rio de Janeiro state.

These two species have a very isolated geographical ranges of occurrence and small population sizes thus their conservation, particularly of *A. sakuraguianum*, which occurs outside of protected areas, depends mainly on the preservation of the remaining Atlantic forests in the Rio de Janeiro state.

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