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Notes on the Distribution of the Species of *Caladium* in Trinidad, West Indies

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ABSTRACT

The genus *Caladium* (Araceae) is represented on the island of Trinidad by four species – *C. bicolor*, *C. picturatum*, *C. schomburgkii*, and *C. humboldtii*. The distributions of these species are discussed.

Key words: Araceae, *Caladium*.

INTRODUCTION

Caladium Vent. (Araceae) is a monocotyledonous genus of ca. 12 species that is native to the tropical regions of the New World, including Trinidad. It is, however, naturalized in other tropical areas, and *C. bicolor* and its hybrids are cultivated in gardens of the temperate zone (Mayo *et al.* 1970). Four species of the genus are said to occur in Trinidad. Only one species, *C. bicolor*, is found in the *Flora of Trinidad and Tobago* (Mayo 1986). Three other species – *C. picturatum*, *C. schomburgkii*, and *C. humboldtii* – were added by Boos and Boos (1993). Only one of three species, *C. picturatum*, was found outside cultivation. *Caladium schomburgkii* and *C. humboldtii* were seen growing only in containers. This paper reviews the distributions of the four species of *Caladium* and reports the presence of some new populations and the extension of their ranges.

Caladium bicolor (Aiton) Ventenat

This species is the most common and widespread species of the genus found on the island and is also the most phenotypically diverse. Ressler (2006) characterized the variation of the patterns found on the leaves of the species. The *Flora of Trinidad and Tobago* (Mayo 1986) gives the distribution of this species as, “Locally very common as a lowland weed of cultivation and probably much more widespread than the above-cited collections would suggest.” Reference was made to only five collections – one from the Botanic Gardens, two from St. Augustine, and two without locations. The species is much more broadly distributed than this description and is not restricted to the lowlands. *Caladium bicolor* is found very commonly throughout the Northern Range (Ressler 2006) to elevations of at least 300 m. It also grows in and around the Central Range, and J. Boos (personal communications) has observed it growing in the southwestern part of the island south of the Pitch Lake. This species is the only species of the genus that flowers freely, and inflorescences are commonly seen during the rainy season. Mayo (1986) also states, “Fruits apparently never set in Trinidad.” This is

not the case. In July 2006, two fruits were collected from plants of this species, one in the Tucker Valley of Chaguaramas National Park at Samaan Park and one in Brasso Seco along the Lalaja Trace (Ressler, unpublished).

Caladium picturatum C. Koch

Boos and Boos (1993) found the first population of *C. picturatum* growing in the area of Vega de Oropouche. It was growing as a weed in and at the edge of a cultivated area. The author and H. Boos saw this population in July of 2005 and again in August of 2009, and it appears to be healthy.

In July of 2005, *C. picturatum* was found by the author growing along Lalaja Trace and a cutoff of that trail. These plants (Fig. 1) were observed again in July of 2006 and August of 2009. In 2009, this population appeared to be in serious decline. Only a few plants were observed. It is uncertain if the plants are dying or if they are healthy but dormant.

In July of 2006, Joachim Pacheco showed the author a single plant of this species growing in the family’s orchard. This plant is about one kilometre from the population along Lalaja Trace. This plant was observed again in 2009. It appeared healthy but did not seem to be increasing in number.

The plants found in the three locations have the same phenotype. No inflorescences have been observed for this species in Trinidad. In all three populations, this species was growing with or very near to *C. bicolor*, and no evidence of introgressive hybridization was observed between these species. Voucher specimens were made from plants growing at Vega de Oropouche and along Lalaja Trace and are deposited in the herbarium at Virginia Wesleyan College.

Caladium schomburgkii Schott

Boos and Boos (1993) found this species growing in a can in Vega de Oropouche. The growers “... insisted that their plants were collected in nearby cocoa and coffee fields and in the forest...”, but declined to show Boos and



Fig. 1. *Caladium picturatum* growing along Lalaja Trace.



Fig. 2. A leaf of *Caladium schomburgkii* of the type growing in cultivation at Vega de Oropouche.

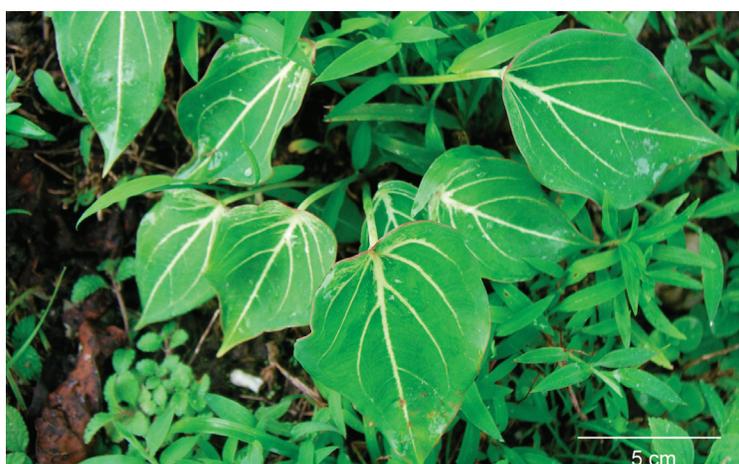


Fig. 3. *Caladium schomburgkii* growing near Matura.



Fig. 4. A leaf of *Caladium schomburgkii* of the type growing along the Paria-Morne Bleu Road.

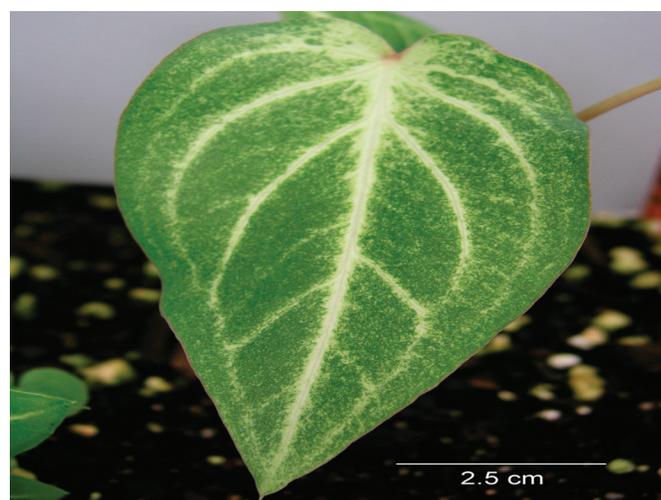


Fig. 5. A leaf of one of the several types of *Caladium schomburgkii* growing along Cambran Trace with the cream-colored veins and the cream-color between the veins.

Boos the area where it grows. The species is still being cultivated by the family. The author and Hans Boos were shown several containers of it in August 2009, and the author obtained a specimen. This collection is very distinct. The blades of the leaves are for the most part pink with only the edge of the blade green (Fig. 2). As noted by Boos and Boos (1993), these plants look very similar to an illustration (Figure 143 B) in Rodway (1917). The plants illustrated in that figure are Indian (Amerindian) beenas or charms. The cultivation and the distribution of this plant, and possibly other species of *Caladium*, may, in part, be explained by the belief that it has magical powers and was moved by the Native Americans causing the range to be extended.

In July of 2006, a single cluster of plants was found growing near the end of a private road to a residence north of Matura along the Toco Main Road. It was growing with *C. bicolor*. The area was intermittently mowed but did not appear to be cultivated in any way. The base of the blade and the veins of these plants were a light cream-color (Fig. 3). This plant looks very similar to a cultivar named 'Changjur', but many older cultivars of *Caladium* are nothing more than selections from wild-collected material. Any similarities between this plant and 'Changjur' may only be accidental.

Caladium schomburgkii was found in August of 2009 growing along the edge of the Paria-Morne Bleu Road near Cambran Trace. It was opposite a road leading to a residence, but the area did not appear to be tended. The blades of these plants were green with cream-colored veins and small red spots (Fig. 4). The day after the population along the Paria-Morne Bleu Road was found, plants were also found growing along Cambran Trace at the top and on a steep cut in the side of the hill. This population was much larger than the one on the Paria-Morne Bleu Road and phenotypically much more diverse. Some of the plants looked the same as the ones on Paria-Morne Bleu Road. Others lacked the red spots and have only cream-colored veins, while some have the cream-colored veins and some cream-colored areas between the veins (Fig. 5). This population has the appearance of one that developed through both sexual and asexual reproduction. The variability within the population may be the result of sexual reproduction, and the increase in the number of plants of each phenotype may be explained by asexual reproduction. Voucher specimens were made from plants growing at all four locations and are deposited in the herbarium at Virginia Wesleyan College.

To date, all the plants found in Trinidad lack the cucullate (hooded, having a cup-like structure on either side of the base of blade) bases that are found on some specimens of *C. schomburgkii* found in South America.

No inflorescences have been observed on plants in Trinidad. In the three locations where *C. schomburgkii* was found growing in the ground, the species is distinct and shows no evidence of introgression with *C. bicolor*.

The status of this species is still uncertain. Are the three populations remnants of cultivated plants, escaped from cultivation, or are they wild and native to Trinidad? All three of the observed populations were in close proximity to houses. It is, therefore, uncertain if they were once cultivated or if the locations are accidental and the species is native to Trinidad.

Caladium humboldtii Schott

As reported by Boos and Boos (1993), this species was seen only in Vega de Oropouche under cultivation. According to the growers, these plants are found in banana and cocoa fields, but they declined to disclose the area where this species grows (Boos and Boos 1993). The author and Hans Boos were shown a single plant of this species growing in a container in August 2009. Searches for this plant in various locations in Trinidad have not revealed any wild plants. An illustration (Figure 143 D) of this species also is found in Rodway (1917). Again, the cultivation and distribution of this plant may also be the result of the belief that this plant has magical powers.

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