

A New Endemic Species of *Anthurium* sect. *Pachyneurium* (Araceae) for Guatemala

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ABSTRACT

A new endemic species of *Anthurium* section *Pachyneurium*, newly discovered in Guatemala, is compared with other species in the section. The species is unique among all *Anthurium* section *Pachyneurium* in having green berries.

KEY WORDS

Anthurium, Section *Pachyneurium*, Araceae, endemic species, Guatemala.

INTRODUCTION

The revision of *Anthurium* section *Pachyneurium* was completed rather recently (Croat, 1991) so it was surprising that a new species was found in Central America, particularly in a country like Guatemala which has been reasonably well collected. The species was first discovered by Juergen Lautner, a systematist and Bromeliaceae specialist at the University of Göttingen in Germany. Lautner took cultivated material back to Germany and in March, 2004 when I visited Göttingen with the assistance of my friend Michael Schwerdtfegger, a staff member at the Göttingen, I instantly recognized it as a new species owing to its green berries, otherwise heretofore unknown in the section *Pachyneurium*. After reporting this new finding to naturalist Jay

Vannini, a friend who lives in Guatemala, he and the second author traveled to the area and recollected the species, took photographs and made additional notes. The species description of this new species follows.

Anthurium guatemalense Croat, Castillo Mont & Vannini, **sp. nov.** Type: GUATEMALA. Escuintla: Quetzal de Piedra, Palín, 14°21.870'N, 90°43.910'W, 755 m, lithophytic on N-facing slope, *Tropical moist forest*, 05 June, 2004, J. C. Castillo Mont & J. Vannini 3058 (holotype, MO-5782778; isotypes, AAU, AGUAT, B, CAS, COL, DUKE, F, GH, INB, B, K, M, MEXU, HNMN, NY, P, PMA, QCNE, RSA, S, SEL, TEFH, TEX, UB, US, VEN).

Planta epipetrica; internodia brevia, 2.5–3.5 cm diam.; cataphylla 4–9 cm longa, petiolus subteres, 9–21 cm longus, 9 mm latus, obtuse sulcata; lamina anguste oblanceolata, 43–86 cm longa, 5.2–18.5 cm lata, nervis primariis lateralibus 20–27 utroque, debilis; pedunculus 11–17 cm longus, 6.5 × 7 mm diam.; spathe 4.5–8 cm longa, 0.8–1.7 cm lata, viride; spadix 5.5–8.5 cm longus, 6–10 mm diam. in sicco; bacca viride, 7–8 mm longa, 5–6 mm diam.

Epipetric, growing on steep cliffs; **internodes** short, 2.5–3.5 cm diam; cataphylls



Fig. 1. Photos of type plant, *Anthurium guatemalense* Croat, Castillo Mont & Vannini. A. Habit. B. Blades at adaxial surface. C. Inflorescence at anthesis. D. Infructescence with one loose seed. (Photos taken by Jay Vannini).

4–9 cm long, persisting semi-intact, thin, light brown, becoming pale-fibrous at base; **petioles** subterete, 9–21 cm long, 9 mm wide, 8 mm thick, narrowly and obtusely sulcate, dark green and weakly glossy, drying pale grayish yellow-green, deeply and sharply sulcate adaxially, sometimes with an obtuse medial rib adaxially, weakly and irregularly ribbed abaxially; geniculum less than 1 cm long, only slightly thicker than the petiole; **blades** narrowly oblanceolate 43–100 cm long, 5.2–20 cm wide, 4.2–10.4 times longer than wide, 3.3–5 times longer than petiole, narrowly acuminate at apex with a short apiculum ca. 5 mm long, acute to abruptly ending at base, moderately coriaceous, weakly glossy, moderately bicolorous, drying medium yellow-green to grayish green and matte above, paler, yellow-green and matte below; **midrib** bluntly angular and concolorous above, narrowly rounded, thicker and slightly pale below, drying narrowly acute and slightly paler above, thicker than broad and irregularly narrowly ribbed, and paler below; **primary lateral veins** 20–27, scarcely visible and concolorous, scarcely distinguished from the interprimary veins above (those in the lower 1/3 of the blade especially weak), weakly raised and concolorous below, drying narrowly raised and slightly paler than surface; tertiary veins darker than surface and moderately distinct below, drying weakly raised; collective veins arising from near the base, 1–7 mm from the margin; blade margin drying paler and weakly down-turned. INFLORESCENCE erect; peduncle 11–17 cm long, 6.5 × 7 mm diam., drying dark green, matte; 4.5–8 cm long, 0.8–1.7 cm wide, green, brown, becoming reflexed, withered, persistent; **spadix** 5.5–11.5 cm long, (3.5–)7.4–14 times longer than wide, drying 6–10 mm diam., green at anthesis and remaining more or less green throughout its development, sometimes becoming gray in age, matte, post-anthesis; flowers 5–7 per spiral, 1.8–2 mm long, 1.8 mm wide, becoming rounded post-anthesis; tepals 1.6 mm wide, the outer margins 2-sided, inner margin broadly rounded, becoming cupuliform in age; pistils green post-anthe-

sis; stamens emerging immediately above the tepals, the lateral stamens emerging only 2–3 spirals head of the 3rd and 4th stamens; anthers 0.4–0.5 mm long, 0.5–0.6 mm wide, slightly divaricate; thecae narrowly ovoid. INFRUCTESCENCE erect; spadix 13 cm long, 3 cm diam. with berries not emergent, 4 cm diam. with berries exerted; **berries** pale green, dark green at apex, obovoid, 7–8 mm long, 5–6 mm diam; seeds dark brown, 5 mm long, 2.5 mm diam, semiglossy.

Anthurium guatemalense appears to be endemic to a single locality in Escuintla Department in southern Guatemala on the steep north-facing slopes behind the Piedra de Quetzal near Palín at about 755 m in a *Tropical moist forest* life zone (Holdridge, 1967). It may also occur in similar habitat at a forested site located ca. 12 airline km away on the lower SW slopes of Volcán de Agua. It is noteworthy that the species occurs in sympatry with another narrow epipetric endemic, *Agave lagunae* Trelease. This agave is known only from this locality and immediate surroundings back towards Lago de Amatitlán, and over towards the forest-covered cliff locality that I propose in the text. The species is a member of section *Pachyneurium*, a group recognized by having a rosulate habit, usually short petioles and oblanceolate leaf blades with involute veneration. The species is characterized by having blades that dry greenish and have very obscure primary lateral veins and green berries. No other species of section *Pachyneurium* in Central America have this combination of characters and no other species in the entire section *Pachyneurium* has mature green berries.

The species was first collected in 1995 by Juergen Lautner (95-13) in the type locality and is in cultivation at Göttingen Botanical Garden in Germany as well as the Nancy Botanical Garden, the Missouri Botanical Garden and in the collections of both junior authors.

Paratype—Cultivated collections: GUATEMALA. **Escuintla**: Piedra del Quet-

zal, Palín, 14°21.870'N, 90°43.910'W, 755 m, Collected originally by Lautner and cultivated at Göttingen Botanical Garden (*Lautner 95-13*) *Croat 90289* (MO).

LITERATURE CITED

- Holdridge, L. R. 1967. *Life zone ecology*. San José, Costa Rica: Tropical Science Center, 206 p.