

# A New Species of *Anthurium* (Araceae) from Loreto, Northern Peru

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## ABSTRACT

*Anthurium barrieri*, a new species of section *Leptanthurium* is described as new. The species, closely related to *A. gracile* (Rudge) Schott, is only the second species described for section *Leptanthurium*. It is distinguished from *A. gracile* by its erect inflorescences, yellowish spadices with more flowers per spiral, larger lobed flowers, proportionately broader leaf blades and sulcate petioles.

## KEY WORDS

*Anthurium barrieri*, Araceae, Peru.

## INTRODUCTION

In 1998 the two junior authors sent me living and dried material of this species but

after an inspection of the material I rejected it as being a new species, despite their insistence that it was new. The dried material so much resembles *A. gracile* that I simply thought it was a variation of that species. However, upon seeing the plants together and in flower on a recent trip to Nancy I was immediately struck by the strong differences in the growth of these two taxa and further investigation has brought about the following treatment and the recognition of a new species.

*Anthurium barrieri* was first collected by Serge Barrier in 1980 and brought back to France then donated to the Nancy Botanical Garden owing to their excellent conditions and good greenhouse staff. Barrier has collected many new species of

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Fig. 1. A. At left, *Anthurium barrieri* Croat, Scherberich & Ferry, potted plant showing habit with short, heavily winged petioles, erect inflorescences and yellowish spadices. Nancy Botanical Garden # 1980.3557 (Croat 95424); at right *Anthurium gracile* (Rudge) Schott, potted plant showing habit with proportionately longer petioles and spreading inflorescences and faintly purplish spadices. Nancy Botanical Garden # 1994.3214 (*Chiron s.n.*, French Guiana). B. *Anthurium barrieri* close-up of leaf blade showing obscure lateral veins. Nancy Botanical Garden # 1980.3557 (Croat 95424). C. *Anthurium barrieri* close-up of inflorescence showing reflexed spathe. Nancy Botanical Garden #1980.3557 (Croat 95424). D. Close-up of inflorescence of *Anthurium gracile*, Nancy Botanical Garden # 1994.3214.



Araceae and the staff at Nancy, especially Madame Geneviève Ferry, has kept these collections alive since the early 1980s. Along with David Scherberich, the catalyst for active aroid research at Nancy, she has accumulated many living collections from other collectors including Scherberich, Josef Bogner, Patrick Blanc (French Guiana, Indonesia, Thailand), Marc Pignal & Franck Lechat (Brazil) and Guy Chiron (French Guiana)].

***Anthurium barrieri*** Croat, Scherberich & Ferry **sp. nov.** Type: PERU. Loreto: Colonia Pebas, N of Pebas, along trail between Río Amazonas and Río Putumayo, 4°39'S, 71°54'30"W, 130 m elevation, collected by Serge Barrier in 1980, voucher prepared 15 July, 2005 from living plant Nancy # 1980.3557, *Croat 95424* (holotype, NCY-006677; isotypes, B, COL, F, K, LYJB, M, MO, NY, P, QCNE, US, USM, VEN)

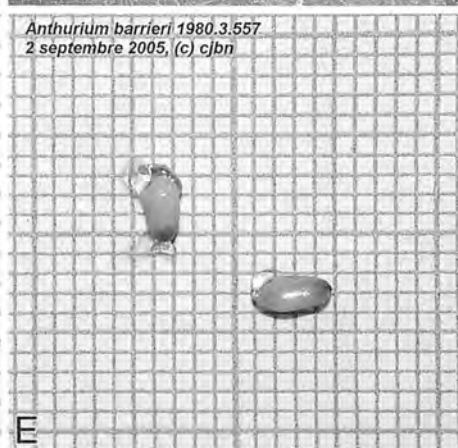
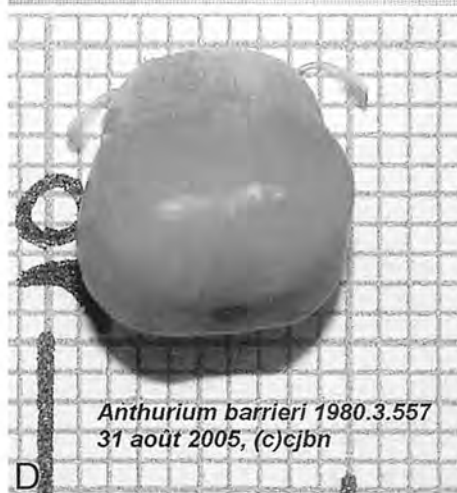
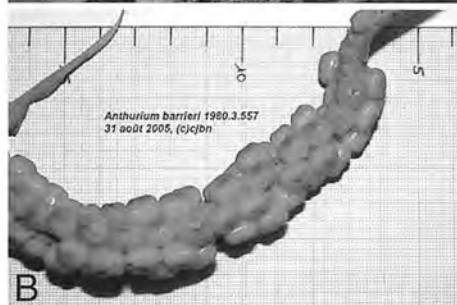
Planta epiphytica; internodia brevia, 1.5 cm diam.; cataphylla 6–10.5 cm longa, persistens intactum; petiolus 6.5–10.5 cm longus, vaginatus  $\frac{2}{3}$ – $\frac{3}{4}$  longitud; nervis primariis lateralibus ca. 15–20 utroque, obscura; pedunculus 18–30 cm longus; spathe viridis, 8.5–13 cm longa, 1.2–2.0 cm lata; spadix 10.5–14 cm longus, (3)4–7 mm diam., sessilis, flavidus; bacca aurantiacus-ruber, latae obovoideus, 6–8 mm longa, 5–7 × 7–9 mm diam.

Epiphyte; STEM internodes short, 1.5 cm diam.; roots gray to whitish, to 16 cm long, 5–8 mm diam.; **cataphylls** 6–10.5 cm long, turning reddish brown, persisting intact, erect. LEAVES with **petioles** 6.5–10.5 cm long, 4–6 mm diam, sharply and

deeply sulcate, subcoriaceous, dark green and matte above, slightly paler and matte below, sheathing (0.37–)0.52–0.60 (averaging 0.53) its length; sheath 4.0–6.5 cm long, the margins pale green; **blades** oblong-elliptic to narrowly ovate-elliptic, 25–30 cm long, 3–5 cm wide; **midrib** prominently raised, weakly paler and acute to bluntly acute above, bluntly acute and paler below with an acute medial rib toward the base; **primary lateral veins** obscure on both surfaces, ca. 15–20 per side, scarcely or not at all raised, concolorous; collective veins moderately obscure, arising from the base, irregular, 3–6 mm from margin; minor veins obscure. INFLORESCENCE stiffly erect at anthesis; peduncle 18–30 cm long (averaging 28.7 cm), 3.5–4 mm diam., medium green, semiglossy, sometimes acutely angular with several smaller ribs on either side near the apex; **spathe** medium green, weakly glossy inside, slightly glossier outside, 8.5–13 cm long, 1.2–2.0 cm wide, the margins turned under and sometimes tinged violet-purple, narrowly long-acuminate at apex with only the midvein clearly visible, subcordate and clasping peduncle at base; **spadix** 10.5–14 cm long, (3)–4–7 mm diam., sessile, straight, pale yellow to yellowish green or brownish yellow green, semiglossy; **flowers** 3–4 visible per spiral, 5–7(–9) mm long, 4–6 mm wide, prominently 4-lobed; tepals shield-shaped, 3.1–3.5 mm wide, the inner margin broadly rounded, outer margin 4-sided, both the sides parallel and perpendicular to the spiral, jaggedly sigmoid; pistils 1.3–1.5 mm long, 0.85–0.90 wide; stamens barely emergent, positioned at the margin of the tepals at anthesis, yellowish, 0.75 mm long and

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Fig. 2. *Anthurium barrieri* Croat, Scherberich & Ferry, Nancy Botanical Garden # 1980.3557 (*Croat 95424*). A. Close-up of stem, petioles and whitish roots. B. Close-up of infructescence showing red berries that are often somewhat elongated in the direction of the axis. Each grid represents 1 cm. D. Close-up of obovoid berry showing stamens attached at base. Each square represents 1 mm. E. Fresh seed showing the gelatinous appendages on both ends of the seed. Each grid of inset equals 1 mm. C. *Anthurium gracile* Nancy Botanical Garden #1994.3214, Close-up of infructescence.



wide pre-anthesis, becoming 0.5 mm long and 0.75 mm post-anthesis with the thecae broadly divaricate; pollen golden-yellow. INFRUCTESCENCE spreading-pendent, peduncle 25–33 cm long, the spadix portion to about 19 cm long, 9 mm diam. before berries emerge, to 2.5 cm diam when berries emerge; **berries** orange-red, subglobose to broadly obovoid, 8–10 mm long, frequently broader in the direction of the axis, 7–9 by 8–9 mm wide., the apex not markedly depressed medially, often marked with cross-like ridges oriented at ca. 45 degrees with the axis; seeds medium yellowish green but darker yellow-green on one end, 3.6–3.8 mm long, 2 mm wide, 1.7 mm thick, bearing a transparent, stick appendage on the chalazal end of the seed, sometimes also with a smaller appendage on the opposite end of the seed.

*Anturium barrieri* is known only from the type locality in northern Peru near the Río Amazon midway between the mouth of the Río Napo and the Colombian border in areas of *Tropical moist forest* life zones at less than 200 m elevation but it is expected to be relatively wide-spread in the upper Amazon basin. The species is a member of Section *Leptanthurium*, only the second species in the section to be described. It is recognized by its short internodes, thick light gray roots, persistent brownish cataphylls, sharply sulcate petioles, oblong-elliptic blades with more or less acute midribs and a near absence of primary lateral veins. The inflorescences are stiffly erect with a reflexed green spathe and a narrowly tapered yellowish spadix with large flowers and orange-red berries.

The species is related to, and confused with, *A. gracile* (Rudge) Schott with which it shares the white roots and heavily winged petioles and elongated blades

with weak or obscure primary lateral veins and reddish berries. That species differs in having blades typically narrower and more often oblanceolate, in having petioles obtusely flattened, not deeply and sharply sulcate, in having the midrib convex on the lower surface (never with an acute medial rib), in having inflorescences with more slender and proportionately longer peduncles that are spreading-pendent with only the spadix directed upward. In addition the spadix of *A. gracile* is dark green and heavily tinged purplish, usually appearing brownish purple in contrast to the yellowish spadices of *A. barrieri*. The flowers of *A. gracile* are proportionately larger in relationship to the width of the spadix with about 2.5 flowers visible per spiral from any view. In contrast the flowers of *A. barrieri* have generally 3–4 flowers visible per spiral. The flowers of *A. gracile* are rhombic, not markedly 4-sided like those of *A. barrieri* and the outer margin of the lateral tepals is 2-sided, not 4-sided, and typically matte, not semiglossy as in *A. barrieri*. The visible portion of the pistil between the tepals is much larger in *A. gracile* with the length of the exposed pistil  $\frac{1}{2}$  the length of the flower whereas in *A. barrieri* the total length of the exposed pistil is less than  $\frac{1}{3}$  of the length of the flower. The infructescences differ as well with the peduncle of *A. barrieri* being proportionately much shorter and thicker than those of *A. gracile*.

The species is named in honor of our friend Serge Barrier, staff member at the National Museum of Natural History in Paris, who first collected the species during his time with the native populations of Secoya Indians in northern Peru. Barrier collected many new species of Araceae during this period and has made significant contributions to our understanding of plants in Peru and French Guiana.