

and densely papillate when dried; lateral tepals 1.1–1.5 mm wide, the inner margins convex, weakly erose, the outer margins 2–3-sided; pistils ca. 0.8 mm long, 0.5 mm wide; stigma oblong, 0.4–0.6 mm long; thecae oblong, slightly or not divaricate; pollen fading to cream-white. *Inflorescence* not seen.

*Anthurium martianum* is known from a single live collection, purportedly from Surinam, that was propagated at the botanical gardens in Berlin, Kiel, and Munich. The herbarium material is highly uniform and appears to be the result of a single introduction. Because it is known only from cultivation and no field-collected herbarium vouchers exist, there is the possibility that it is a cultivated plant of hybrid origin. However, because the taxon is clearly distinct, it will be retained here.

This species is distinguished by its persistent spathe, short, yet very tapered spadix, moderately long petioles and its leaf blades, rounded at the base, with several pairs of congested lateral veins near the base, and with a collective vein arising from near the base.

*Anthurium martianum* is closest in appearance to *A. dombeyanum*, which has generally shorter petioles and more undulate leaf blades that are broadest above the middle.

A living collection at the Munich Botanical Garden (without number) labeled *A. martianum* and vouchered as *Croat 61178* perhaps represents this species; however, although it closely matches the plate in *Gartenflora* 20: t. 681 (1871), it is smaller and the primary lateral veins are fewer and not nearly as distinct as the type material.

SURINAM?. Cultivated. Engler's *Araceae Exsiccatae* #165 (B, GH, P). Cultivated at Munich, *Croat 61178* (MO).

***Anthurium napaeum*** Engl., Bot. Jahrb. Syst. 25: 407. 1898. TYPE: Ecuador. Pichincha: Río Napac ("Napa"), *Sodiro s.n.* (holotype, B). Figures 197, 199, 200.

*Anthurium peripense* Engl., Bot. Jahrb. Syst. 25: 442. 1898. TYPE: Ecuador. Manabí: Río Peripa, *Sodiro s.n.* (holotype, B).

*Anthurium rircayanum* Sodiro, Anal. Univ. Centr. (Quito) 22(156): 21. 1906. TYPE: Ecuador. Guayas: Río Rircay, *Rimbach s.n.* (holotype, B).

Terrestrial, or caespitose on rocks, sometimes epiphytic; stems 9–30 cm long, 1.5–2.5 cm diam.; roots numerous, dense, spreading to descending, white to green, whitish or brown on drying, ± smooth, thick and short to slender and elongate, weakly tapered at apex, 2–4 mm diam.; cataphylls

subcoriaceous, 8–9(16) cm long, acuminate and apiculate at apex, pale green, drying tan, persisting intact, eventually as a reticulum of fibers. *Leaves* erect to erect-spreading; petioles (8)16–42 cm long, 5–15 mm diam., broadly triangular, convex adaxially with weak medial ridge, the margins prominently and sharply raised, almost winged, bluntly to sharply angular abaxially, the surface conspicuously pale short-lineate; geniculum slightly thicker and paler than petiole, 1–2 cm long; blades moderately coriaceous, broadly lanceolate to oblong-elliptic to oblanceolate, long-acuminate at apex (the acumen short-apiculate), acute to obtuse at base, (31)40–70(82) cm long, (5)9–28 cm wide, broadest at or above the middle, the margins flat to broadly undulate; upper surface glossy, dark green, lower surface glossy to semiglossy, conspicuously paler; both surfaces matte when dried, green to brown; midrib prominently convex at base, becoming higher than broad toward the apex above, pale short-lineate and paler than surface, prominently and sharply acute-raised below, raised above and below when dried, paler than surface below, same as surface above; primary lateral veins numerous, ca. 20–30 per side, departing midrib at 50–75° angle, straight-ascending, weakly visible above and below when fresh, slightly raised on both surfaces when dried; interprimary veins almost as conspicuous as primary lateral veins; tertiary veins weakly visible when dried; collective vein arising from near the base or in the upper third of the blade, slightly more prominent than primary lateral veins when fresh below, equally as prominent as primary lateral veins when dried, 2–13 mm from margin. *Inflorescences* erect to spreading, shorter than leaves; peduncle 23–50(62) cm long, 3–7 mm diam., sharply 2–3-ridged, 2–3 × as long as petiole, green heavily tinged with red-violet at base, faintly red-violet toward the apex; spathe reflexed-spreading, subcoriaceous, green tinged with red-violet (B & K yellow-green 6/7.5), linear-lanceolate to lanceolate, 6–10 cm long, 0.4–1.5 cm wide, broadest near the base or in lower third, inserted at 60–70° angle on peduncle, long-acuminate at apex (the acumen inrolled), acute at base, the margins meeting at 90° angle; spadix brownish purple (B & K red-purple 2/10) to dark purple, rarely dark olive-green, cylindrical to weakly tapered, sessile or stipitate 1–2 mm, erect, 5.5–16 cm long, 5–6 mm diam. midway; flowers ± square to 4-lobed, 1.9–2.5 mm long, 2–2.4 mm wide, the sides jaggedly sigmoid; 4–6 flowers visible in principal spiral, 8–10 in alternate spiral; tepals matte to semiglossy, densely papillate; lateral tepals 0.7–1.2 mm wide, the inner margins straight, the outer margins

2-sided, sometimes weakly 4-sided; pistils raised but not emergent, or held slightly above the tepals, green; stigma ellipsoid, 0.4 mm long, brushlike; stamens emerging shortly above the tepals, laterals emerging almost to the apex before alternates emerge; filaments fleshy, translucent or purplish, 0.5–0.8 mm long, 0.4–0.8 mm wide; anthers yellow to purplish, 0.3–0.6 mm long, 0.4–0.7 mm wide, inclined over the pistil; thecae oblong, drying ovoid, scarcely divaricate; pollen white to yellow-orange fading to tan. *Infructescence* with spathe persisting; spadix 8–22 cm long, 0.5–1.4 cm diam.; berries reddish to dark purplish violet, ovoid, exserted, acute at apex, drying 4.2–6 mm long, 2–2.5 mm diam.

A member of series *Multinervia*, *Anthurium napaeum* occurs in Ecuador on the western slopes of the Andes, at 200 to 1,400 (1,800) m in premontane wet and premontane moist forest, and in Nariño, Colombia. One specimen from Cotopaxi, between Latacunga and Quevedo at 800 to 950 m, was reported to occur in montane moist forest.

This species is characterized by its generally terrestrial habit, short, densely rooted stem, cataphylls that persist as a reticulum of fibers, broadly triangular, conspicuously pale-speckled petioles, leaf blades which are usually glossy on both surfaces when fresh, drying green and often conspicuously paler below, and by its cylindroid, brownish purple spadix with 4–6 flowers visible in the principal spiral.

*Anthurium napaeum* is most closely allied to *A. palenquense*, which differs in having leaf blades with the margins conspicuously concave toward the base.

The names *Anthurium peripense* and *A. rircayanum* are synonymized here for the first time. The type localities of these species, together with that of *A. napaeum* are in the coastal lowlands of western Ecuador, draining into the Gulf of Guayaquil. The differences between the type specimens are slight, the main one being leaf shape: the types of *A. napaeum* and of *A. rircayanum* closely resemble each other in this respect, while that of *A. peripense* has straighter blade margins which are somewhat concave toward the base.

An unusual collection (Croat 55782) exhibits stamens starting emergence at the apex of the spadix and progressing regularly to the base, with the laterals preceding the alternates by up to 18 spirals. Basipetal maturation of the stamens has not been observed in any other *Anthurium*.

COLOMBIA. NARIÑO: La Planada, Salazar Finca 7 km above Ricaurte, 1,750 m, 1°08'N, 77°58'W, Gentry et

al. 35197 (COL, MO). ECUADOR. CAÑAR: Azoques-El Triunfo, 1 km S of La Delicia, 2°27'S, 79°10'W, Croat 50876 (AAU, B, CAS, K, CM, M, MO, RSA, US); Azoques-El Triunfo, 5 km W of La Delicia, 8 km SE of El Truncal, 600 m, 2°27'S, 79°15'W, Croat 50904 (CM, MO). CARCHI: Peñas Blancas, 900 m, Christenson 1535 (MO). CHIMBORAZO: Sibambe, 1,000–1,600 m, Solís 5342 (F); Río Chanchán, 5 km N of Huigra, 1,667–2,167 m, Camp 3428 (NY). COTOPAXI: Quevedo-Latacunga, 800–950 m, 0°55'S, 79°10'W, Holm-Nielsen et al. 3021 (AAU); Río Pilaló, Quevedo-Latacunga, Teneferster, 750–1,300 m, Dodson & Gentry 11987, 12297, 12797 (MO, SEL); 3 km E of El Palmar, 800 m, Dodson & Gentry 10267 (MO, SEL); 55.5 km from Quevedo, 23.5 km E of La Maná, 930–950 m, 0°53'S, 79°04'W, Croat 57035 (CAS, BG, K, MBM, MEXU, MO, P, PMA); Quevedo-El Corazón, 1.9 km NW of El Corazón, 67.5 km SE of Quevedo, 1,225 m, 1°07'S, 79°06'W, Croat 55829 (MO, QCA); Río Angamarca, Quevedo-El Corazón, Las Juntas, 200 m, Harling & Anderson 19025 (MO, GB); Quevedo-El Corazón, 63.4 km SE of Quevedo, 6 Km NW of El Corazón, slopes near waterfall above river, 1,030 m, 1°7'S, 79°7'W, Croat 55782 (AAU, F, M, MO, NY, QCA, RSA, US). ESMERALDAS: 300 m, Cobb 77 (MO). GUAYAS: Naranjal, Entable, below 500 m, Lehmann s.n. (K); Río Riracay, Rimbach s.n. (B). Junction of Provinces GUAYAS, CAÑAR, CHIMBORAZO & BOLÍVAR: Bucay, 420 m, Camp 3648 (NY, MO). MANABI: Río Peripa, Sodiro s.n. (B). PICHINCHA: Quito-Santo Domingo de Los Colorados, Chiriboga Road, Estación Los Faisanes, 12 km from Río Pilatón, 1,400 m, Harling & Anderson 23128 (GB); Río Pilatón, Alluruquín, 22 km E of Santo Domingo, 950 m, 0°15'S, 78°58'W, Hammel & Wilder 16073 (B, K, MO); Km 23 on Santa Domingo-Puerto Limón road, 100 m, 0°21'S, 79°22'W, Kvist 40676 (AAU); San Juan, La Palma, 930 m, Croat 38739 (F, MO); Alluruquín-Chiriboga, 1,100 m, Madison 4069 (K, SEL); Río Blanco, below confluence with Río Toachi, 300 m, Harling 4516 (S); Río Napa, Sodiro s.n. (B).

***Anthurium narioense* Croat, sp. nov. TYPE:**

Colombia. Nariño: Junín-Barbacoa road, 2–10 km N of Junín, 900–1,000 m, 1°30'N, 78°10'W, Gentry et al. 55343 (holotype, MO 3486084; isotype, PSO). Figure 201.

Planta epiphytica; petiolus 12 cm longus, 7 mm diam., D-formatus; lamina oblongo-oblancoelata, basi attenuata, ad 93 cm longa, 16 cm lata; pedunculus ad 40 cm longus; spatha oblongo-lanceolata, ad 11 cm longa, 1.5 cm lata; spadix atrorubens, 17 cm longus, 5–6 mm diam.; baccae ignotae.

Description based on dried material only. Epiphytic; stem and cataphylls unknown. Leaves erect-spreading; petioles ca. 12 cm long, 7 mm diam., D-shaped, slightly convex adaxially, apparently rounded abaxially; geniculum 1.5 cm long; blades subcoriaceous, oblong-oblancoelate, acuminate at apex, long-attenuate at base, 93 cm long, 16 cm wide, broadest above middle, yellowish, the margins flat; midrib convexly raised above, prominently convexly raised below; primary lateral veins ca. 30