

Anthurium sparreorum is nearly restricted to the Province of Los Ríos in Ecuador, at 210 to 250 m in a tropical moist forest life zone. An additional collection is known from Cotopaxi.

This species is characterized by its short stem, dense, bright green to greenish white roots, cataphylls drying pale yellow-tan and persist semi-intact, coriaceous leaf blades drying matte and green and reddish violet, cylindroid spadix. Most significant is the infructescence, with the berries exerted beyond the tepals. The latter become fleshy, whitish, enlarged and elongated, with the outer edge raised and acute.

Anthurium sparreorum bears some resemblance to both *A. campii* and *A. bucyanum*, which also have large, green-drying leaves with the collective vein arising from near the base. *Anthurium campii* differs in its green spadix, more coriaceous leaf blades, and shorter petioles. *Anthurium bucyanum* differs in its very thin leaves and prominently stipitate spadix. *Anthurium sparreorum* also has a shorter peduncle than either of these species.

The new species is named in honor of the late Benkt Sparre, formerly curator of the Regnellian Herbarium in Stockholm and co-editor of the Flora of Ecuador Project, and his wife, Bride. Together they made concentrated efforts to collect Araceae and discovered numerous novelties in the process.

ECUADOR. Cultivated by Tom Fennel, Homestead, Florida, *Croat 57195* (F, MO). COTOPAXI: Rio Guapara, 20 km NW of El Corazón, 250 m, *Sparre 17248* (S). LOS RÍOS: Rio Palenque Biological Station, Quevedo-Santo Domingo, 210–250 m, *Croat 38666* (B, CAS, CM, K, M, MO, NY, QCA, RSA, US), *Dodson & Tan 5389* (US, SEL), *Madison 3715* (SEL), *5513* (K), *6959* (MO, SEL, US).

Anthurium spathiphyllum N. E. Br., Gard. Chron. I. 652. 1877. TYPE: Origin unknown, Hort. Kew, 8 Nov. 1876 (holotype, K). Figures 303, 304.

Epiphytic; stem ca. 10 cm long, 2 cm diam.; roots moderately numerous, descending, greenish gray, prominently pubescent, gradually tapered and elongate, 3–5 mm diam.; cataphylls subcoriaceous, lanceolate, 6–8 cm long, cuspidate at apex with subapical apiculum ca. 15 mm long, green, drying pale tan (B & K yellow 9/7.5), persisting as linear fibers. *Leaves* spreading; petioles 6–26 cm long, 5–8 mm diam., triangular, sometimes 3–5-ribbed or flattened with the margins prominently raised adaxially, sharply 1–2-ribbed abaxially; geniculum conspicuously thicker and slightly paler than petiole, 0.7–1 cm long; blades subcoriaceous, linear

to narrowly oblong-elliptic or narrowly oblong-ob-lanceolate, more than 5 × longer than wide, acuminate at apex (the acumen apiculate), narrowly acute at base, 46–80 cm long, 5.5–12.5 cm wide, broadest at or above the middle, the margins broadly undulate; upper surface matte to glossy, dark to medium green, lower surface matte to weakly glossy, paler below; midrib flat at base, becoming angular-raised toward the apex above, prominently and sharply raised and slightly paler than surface below; primary lateral veins 20–30 per side, departing midrib at 40–45° angle, straight to the collective vein, deeply sunken above, sharply raised below; interprimary veins almost as conspicuous as primary lateral veins, sunken above, raised below; tertiary veins obscure above, raised and slightly darker than surface below; collective vein arising from near the base, sunken above, sharply raised below, equally as prominent as primary lateral veins, 3–10 mm from margin. *Inflorescences* spreading, shorter than leaves; peduncle 33–48 cm long, 4–15 mm diam., 2 × as long as petiole, green, prominently 2-winged-angled on one side, rounded to sharply acute on the other (or triangular or few-angled near base); spathe erect, hooded over the spadix, subcoriaceous, green, lanceolate to broadly lanceolate, 6.5–8 cm long, 1.7–3 cm wide, broadest near the base, about twice as long as spadix, inserted at 50° angle on peduncle, acuminate at apex (the acumen apiculate, 4 mm long), obtuse to rounded at base; spadix pale yellow to creamy white, cylindroid to clavate, short and stubby, erect, (1.7)2–4 cm long, 6–11 mm diam.; flowers 1.8–2.2 mm long, 1–1.2 mm wide, the sides smoothly to jaggedly sigmoid; 7–12 flowers visible in principal spiral, 11–15 in alternate spiral; tepals matte, densely and minutely papillate; lateral tepals 0.7–0.8 mm wide, the inner margins straight to convex, the outer margins irregularly 2–4-sided; pistils somewhat emergent, matte, pale yellow; stigma linear, 0.1–0.2 mm long; stamens emerging in a scattered pattern throughout, lateral stamens almost to apex before alternates emerge, inclined over and obscuring pistil; filaments fleshy; thecae oblong, not divaricate; pollen pale yellow fading to creamy white. Berries translucent white.

Anthurium spathiphyllum is known from Nicaragua to Panama mostly from sea level to 380 m (rarely to as high as 1,350 m) on the Atlantic slope in wetter parts of tropical wet forest and in premontane wet and tropical wet forest life zones.

Anthurium spathiphyllum can be recognized by its epiphytic habit, chartaceous leaves, usually triangular, sometimes three- to five-ribbed petiole,

lanceolate to broadly lanceolate, cucullate spathe, and short, scarcely tapered, pale yellow spadix.

Anthurium spathiphyllum can be confused with *A. bradeanum*, which has a similarly clavate spadix, but that species has oblanceolate-elliptic blades less than five times longer than wide (vs. more than five in *A. spathiphyllum*), with (5)10–15 pairs of primary lateral veins that are not deeply impressed, a peduncle which is not prominently winged, a deflexed, ovate spathe about as long as the spadix, and petioles that are commonly quadrangular in cross section.

COSTA RICA. ALAJUELA: 3 mi. N of San Miguel, 380 m, *Croat 35651* (MO, RSA). HEREDIA: 4 mi. N of Vara Blanca, 1,350 m, *Croat 35571* (MO); Finca La Selva, OTS Field Station on Río Puerto Viejo, just E of its junction with Río Sarapiquí, 100 m, *Wilbur & Jacobs 34194* (DUKE), *Folsom 8950* (CAS); Puerto Viejo de Sarapiquí, along El Surá trail, 100–150 m, *Croat 44309* (MO); Puerto Viejo Region, Río Puerto Viejo, *Burger & Mata 4258* (F); Zona Protectora La Selva, 6 km by road from Río Peje crossing, 5 km SSE of Magsasay, 10°21'N, 84°4'W, 340 m, *Schatz & Grayum 644* (DUKE). LIMÓN: Pandora, 100 m, *Ocampo 1987* (MO); Hacienda Tapasco-Hacienda La Suerte, 29 air km W of Tortuguero, 40 m, 10°30'N, 83°47'W, *Davidson & Donahue 8954* (MO); Quebrada Mata de Limón headwaters, Finca Anai, Sixaola, 25–40 m, 9°35'N, 82°39'W, *Grayum 4515* (MO); Río Parismina, W of Dos Bocas, *Lent 2444* (F); Talamanca, Cocles, 150 m, *Ocampo 1906* (MO). PUNTARENAS: Parque Nacional Corcovado, campamento Sirena, *Téllez et al. 4248* (MEXU, MO). SAN JOSÉ: Parque Nacional Braulio Carrillo, Fila Carrillo, 600–700 m, *Chacón 338* (MO); Chasse, Talamanca, 200 m, *Ocampo 1625* (CR); 300 m, *Ocampo 1624* (CR). NICARAGUA. ZELAYA: 0.3–1.9 km N of Limbaika, 8–10 m, 13°29'N, 84°13'W, *Stevens 8255* (MO); Risco de Oro, 40 m, *Pipoly 5021* (MO); Colonia Kururia, 50 m, 14°41'N, 84°4'W, *Pipoly 3968* (MO); 13 km above Kururia, on road to San Jerónimo, 200 m, 14°39'–42'N, 84°4'–11'W, *Pipoly 3743, 3830* (MO); Rosita-Puerto Cabezas, 15.7 km SW of Río Kukulaya, 100 m, 13°58'N, 84°12'W, *Stevens 8504* (MO). PANAMA. BOCAS DEL TORO: Changuinola-Almirante, Milla 7.5, above RR stop, *Croat & Porter 16276* (MO), *Kennedy 1273* (DUKE); 15 km S of Changuinola, 300 m, *Antonio 3150* (MO); Almirante-Changuinola Canal, *Blum 1403* (FSU, SCZ). COCLÉ: at confluence of Río Toabre and Río Coclé del Norte, Boca del Toabre, *Lewis et al. 5569* (MO).

Anthurium spectabile Schott, Oesterr. Bot. Z. 8: 181. 1858. TYPE: Costa Rica. Cartago: Volcán Turrialba, *Wendland 506* (holotype, GOET). Figures 305, 319.

Anthurium longispathum Schott, Prodr. Aroid. 520. 1858. TYPE: Costa Rica. Turrialba, *Oersted s.n.* (lectotype, illustrated by Schott Aroideae 707).

Epiphytic; stem erect; cataphylls coriaceous, 17–51 cm long, lanceolate, obtuse to mucronate at apex, light green, drying light tan (B & K yellow-

red 9/10), persisting with the apex remaining intact. *Leaves* spreading; petioles 14–63 cm long, 7–12 mm diam., quadrangular, flattened to broadly and sharply sulcate adaxially, the margins sharply raised, sharply 2–3-ribbed abaxially; geniculum thicker and paler than petiole, becoming fissured transversely with age, (1.3)2–7 cm long; blades coriaceous, oblong-lanceolate to oblong or oblong-triangular, rounded to obtuse to acuminate at apex, rounded to truncate at base, 37–140(160) cm long, 8–38(45) cm wide, the margins undulate; upper surface matte to semiglossy, medium green, lower surface semiglossy to glossy, paler; midrib obtusely angular at base, becoming narrowly raised toward the apex above, prominently higher than broad at base, becoming prominently convexly raised toward the apex below, paler than surface above and below; primary lateral veins more than 20 per side, departing midrib at 45–75° angle, prominently and narrowly raised above and below; tertiary veins obscure above, raised and darker than surface below; collective vein arising in the lower half of the blade, sunken above, raised below, less prominent than primary lateral veins, 2–3 mm from margin. *Inflorescences* spreading, shorter than leaves; peduncle 13–25 cm long, 0.6–0.7× as long as petiole, terete; spathe usually recurled and twisted, prominently reflexed, subcoriaceous, green or violet-purple, narrowly ovate to oblong-lanceolate, 10.5–32 cm long, 3–7 cm wide, inserted at 45° angle on peduncle, acuminate at apex, rounded to subcordate at base; spadix yellow-green, long-tapered, 16–38 cm long, 9–12 mm diam. near base, 6–7 mm diam. near apex; flowers rhombic to 4-lobed, 2.5–4 mm in both directions, the sides sigmoid; 7–11 flowers visible in principal spiral, ca. 9 in alternate spiral; tepals matte to semiglossy; lateral tepals ca. 2.7 mm wide, the inner margins convex; pistils emergent, green, violet-purple at apex; stigma ellipsoid, ca. 1 mm long, stamens emerging promptly throughout length of spadix in a complete sequence, grouped in a circle around the pistil; anthers 1–1.1 mm long, 1–1.2 mm wide; thecae oblong to narrowly ovoid, slightly divaricate; pollen cream. *Infructescence* with spadix to 50 cm long; berries probably orange at maturity, oblong-linear, acute to blunt at apex, 10–14 mm long, ca. 3.5 mm diam.; seeds 2 per berry, 3.4–3.6 mm long, ca. 1.6 mm diam., with a minute appendage at both ends.

Anthurium spectabile is endemic to Costa Rica, where it occurs at 300 to 1,300 m in premontane wet forest and tropical wet forest life zones.

This species is recognized by its elongate, pen-