

1,780 m, 8°46'N, 82°25'W *Croat 66358* (MO); headwaters of Río Palo Alto, above Palo Alto, 1,700–2,100 m, 8°47'N, 82°22'W, *Knapp & Schmalzel 4794* (MO, USM); N fork of Río Palo Alto–Cerro Pate Macho, 6 km NE of Boquete, 1,500–1,700 m, *Grayum et al. 6361* (CM, MO, NY), *Stein et al. 1183* (MO); Cerro Punta, Raul Castro's house, Guadalupe, 2,000–2,330 m, *Folsom 6034, 6035* (MO); 0.5 mi. SE of Entre Ríos, 1 mi. by road from Cerro Punta, 2,000 m, *Croat 48568* (K, MO, PMA, SEL); 2.2 mi. below Cerro Punta, W side of Volcán Chiriquí, 200 m, *Luteyn 902* (MO); Alto los Guerra, road W of Bambito, 1,800–2,000 m, 8°53'N, 82°37'W, *Hamilton & Krager 3894* (B, K, MO); E of Bajo Choro, N slope of Barú, 2,000–2,170 m, *Hammel 2994* (MO); Quebrada Bambito, S of Cerro Punta, *Lazor 2727* (MO); Las Cumbres, W of Cerro Punta, 2,470 m, *D'Arcy et al. 13196* (MO); Casita Alta, Volcán de Chiriquí, 1,500–2,000 m, *Woodson et al. 882, 982* (MO); Bambito–Cerro Punta, Volcán de Chiriquí, *Croat 10551* (MO); Las Nubes, 2,000 m, *Croat 26427* (MO, SEL), *Croat 26494* (B, CAS, CM, DUKE, K, MO); N of Audubon cabin, *Croat 13618* (MO); along road to Cerro Punta, 8 km NW of Boquete, 5.5 km NW of Alto Quiel, 1,600 m, *Nee 9945* (MO); E of Cerro Punta, road to Paseo Respingo, 2,330 m, *Hammel et al. 6623* (MO); Río Caldera, Bajo Mono, NW of Boquete, 2,130 m, *D'Arcy et al. 12761* (MO); Río Chiriquí Viejo, upper part, Monte Lirio, 1,300–2,000 m, *Allen 1506* (MO), *Seibert 172* (MO, NY), *Seibert 289* (MO); Dtto. Boquete, Bajo Chorro, *Davidson 225, 276* (MO); Dtto. Bugaba, Cerro Pando, Santa Clara, Hartman's finca, 1,300 m, 8°50'N, 82°44'W, *van der Werff & Herrera 7126* (B, MO), *7303* (MO, RSA).

Anthurium selloum K. Koch, Ind. Sem. Hort. Berol. App. 8. 1855. TYPE: St. Johns, Virgin Islands, *Krebs s.n.* (lectotype, C). Figures 193A, 289.

Pothos macrophylla Sw., Prodr. 33: 1788; Fl. Ind. Occ. 3: 269. 1806. TYPE: Jamaica? Not seen.

Anthurium macrophyllum (Sw.) Schott (1829) non D. Don in Sweet (1839) nec Endl. ex Griseb. (1864), Prodr. Aroid. 516. 1860.

Description based on dried material only. Epilithic; stem and cataphylls unknown. *Leaves* with petioles ca. 34–45 cm long, ca. 7 mm diam., mostly spreading, apparently D-shaped, slightly flattened laterally, sulcate adaxially, with the margins acutely raised, rounded abaxially; geniculum thicker and paler than petiole, 1–1.5 cm long; sheath 4 cm long; blades subcoriaceous, oblong-ovate, somewhat triangular, acute to weakly and shortly acuminate at apex (the acumen ca. 10 mm long), broadly and shallowly cordate at base, 36–46 cm long, 14–19 cm wide, broadest in the basal third, the margins conspicuously and broadly undulate; apex of posterior lobes rounded; sinus parabolic-arcuate, 3 cm deep; both surfaces weakly glossy, yellowish brown and greenish in part; midrib apparently convexly raised above and below; major

veins convexly raised, paler than surface and yellowish above and below; basal veins 3–4 pairs, 2nd & 3rd to 4th coalesced for up to 1.3 cm; primary lateral veins 3–5 per side, departing midrib at 25–45° angle, mostly straight, sometimes arcuate to the margin; interprimary veins sometimes present, ranging from not as conspicuous as to almost as conspicuous as primary lateral veins; tertiary veins conspicuous above and below; reticulate veins obscure above, weakly visible below; collective vein arising from uppermost ½ or ⅓ of the blade, less prominent than primary lateral veins, to 11 mm from margin. *Inflorescences* apparently ± spreading; peduncle 39–73 cm long, 2–4 mm diam., 1.1–2.1 × as long as petiole, pale green, subterete; spathe semi-erect to reflexed, thinly coriaceous, pale green, oblong-lanceolate, 7.5–13.5 cm long, 0.8–1.4 cm wide, broadest near the base, inserted at 40–50° angle on peduncle, narrowly acuminate to caudate at apex (the acumen 10–20 mm long), acute to obtuse at base; spadix dark maroon purple to brownish purple, long-tapered, sessile, held at 150–170° angle from peduncle, 14–27 cm long, 6–8 mm diam. near base, 2–3 mm diam. near apex, broadest near the base; flowers rhombic, 1.6–2.4 mm long, 1.7–2.8 mm wide, the sides jaggedly to smoothly sigmoid; 7–8 flowers visible in principal spiral, 4–6 in alternate spiral; tepals roughened, lateral tepals 1.1–1.5 mm wide, the inner margins usually broadly convex, sometimes straight, the outer margins 2-sided; stigma broadly ellipsoid, 0.4–0.6 mm long, densely brush-like; filaments apparently flattened, 0.4–0.5 mm long, 0.5–0.7 mm wide; anthers yellow, 0.5–0.6 mm long, 0.4–0.5 mm wide; thecae oblong, not divaricate. *Infructescence* not seen.

Anthurium selloum is endemic to the West Indies, known only by a few collections from elevations of 300 m or less, on two of the U.S. and British Virgin Islands (St. John and Tortola, respectively).

This species is distinguished by its somewhat triangular, shallowly cordate leaf blades broadest in the lower third and with 3–4 pairs of basal veins, and by the long-tapered, dark maroon-purple spadix. It is unlikely to be confused with any other species in the West Indies, or anywhere else.

Engler (1905) questionably placed *Pothos macrophylla* Sw. in synonymy with *A. selloum*, perhaps based on Schott's (1860) placement of *A. selloum* in synonymy with *A. macrophyllum* Schott.

BRITISH VIRGIN ISLANDS. TORTOLA: High Bush, 75 m, *Britton & Shafer 714* (NY, US). U.S. VIRGIN ISLANDS. ST JOHN: *Raunkiaer 2669* (C); Bordeaux, 300 m, *Britton*

& *Shafer 560* (NY, US), *Krebs s.n.* (C). WEST INDIES.
WITHOUT LOCALITY: *Martens s.n.* (BR), *Brown s.n.* (K).

Anthurium simpsonii Croat, sp. nov. TYPE: Peru.

Tumbes: Dtto. Matapalo, road to Campo Verde, *Simpson & Schunke 392* (holotype, F 1771582). Figure 290.

Planta epiphytica; internodia ca. 1.5 cm diam.; cataphyllum persistens velis fibrarum reticularum; petiolus 6 cm longus, ca. 6 mm diam., D-formatus; lamina oblongo-oblancoelata, 66 cm longa, 8.5 cm lata; pedunculus 23–25 cm longus; spatha oblancoelata, ca. 5 cm longa, ca. 8 mm lata; spadix purpureus, cylindricus, ca. 5 mm diam.

Description based on dried material only. Epiphytic; stem ca. 1.5 cm diam.; roots numerous, dense, gray-brown and shortly woolly-pubescent, moderately thick and elongate, somewhat tapered at apex, 3–5 mm diam.; cataphylls subcoriaceous, 11.5–12 cm long, acuminate at apex, tan, persisting intact, eventually as a reticulum of fibers. *Leaves* erect or somewhat spreading; petioles 6 cm long, ca. 6 mm diam., D-shaped, probably flattened adaxially, rounded or multi-ribbed abaxially; geniculum slightly darker than petiole, ca. 1 cm long; blades subcoriaceous, oblong-oblancoelate, acute at apex (the acumen apiculate), acute at base, 66 cm long, 8.5 cm wide, broadest at or above the middle; upper surface glossy, lower surface semiglossy; both surfaces matte, grayish green; midrib flat to convexly raised above, concolorous with the surface, prominently and convexly raised below, paler than surface; primary lateral veins ca. 22 per side, departing midrib at 50–60° angle, ± straight to the collective vein, raised above and below, slightly paler than surface below; interprimary veins prominent below; reticulate veins visible below; collective vein arising from near the base, raised above and below, less prominent than primary lateral veins, 1–3 mm from margin. *Inflorescences* with peduncle 23–25 cm long, ca. 3 mm diam., ca. 5 × as long as petioles, terete; spathe, yellowish brown, oblancoelate, ca. 5 cm long, 0.8 cm wide, acute at base, the margins meeting at an acute angle; stipe 7 mm long in front, 3 mm long in back; spadix purplish, cylindroid, erect, ca. 5 mm diam.; flowers ± square; 5–7 flowers visible in principal spiral, 7–9 in alternate spiral; tepals deep purple with light tips; lateral tepals 0.9–1.2 mm wide, the inner margins straight, the outer margins 2-sided; pistils glossy, wine-red; stigma probably slitlike; anthers 0.4 mm long, 0.4–0.5 mm wide; thecae oblong, 0.2 mm wide, slightly or not at all divaricate. *Inflorescence* with spathe persistent; spadix 12.5 cm long, 1.8 cm diam.; berries purple, ovoid, acute at apex, 6.5 mm long, 5.5 mm diam.; me-

socarp translucent, gelatinous, orange; seeds 2 per berry, yellow-brown, flattened, 3.5–3.7 mm long, 2.7 mm diam., 0.9–1 mm thick, enveloped by gelatinous, translucent substance.

Anthurium simpsonii is known only from the type collection from the Department of Tumbes in northern coastal Peru, at 600 to 800 m in the subtropical dry forest life zone.

This species is characterized by its small size, very short petioles, and oblong-oblancoelate blades with collective veins arising from near the base, as well as by the long, rather slender spadix, deep purple flowers, and wine-red fruits. It is not likely to be confused with any other species. The only other species of sect. *Pachyneurium* that occurs in this part of Peru is *Anthurium barclayanum*, a much larger plant with leaves drying dark brown (not grayish) and collective veins arising from near the apex.

The new species is named in honor of Donald Simpson, formerly of the Field Museum of Natural History (F), who collected the type when he headed the Flora of Peru Project.

PERU. TUMBES: Prov. Zarumilla, Dtto. Matapalo, Bosque Nacional de Tumbes, Campo Verde, 600–800 m, *Simpson & Schunke 392* (F).

Anthurium solitarium (Vell. Conc.) Schott, Prodr. Aroid. 478. 1860. Figures 292, 293, 295.

Pothos solitarius Vell. Conc., Fl. Flum. 9: t. 123. 1825 [1829]. TYPE: Brazil. Rio de Janeiro. (The plate cited above serves as the type.)

Anthurium glaziovii Hook. f., Bot. Mag. t. 6833. 1885. TYPE: Brazil. Rio de Janeiro, *Glaziou 17333* (holotype, B, photo seen; isotype, K).

Anthurium nobile Engl., Bot. Jahrb. Syst. 25: 366. 1898. TYPE: Brazil. Rio de Janeiro, *Glaziou 9039* (holotype, B; MO, photo).

Epiphytic or epilithic; stem 1.5–4 cm diam.; roots descending, velutinous, appearing inflated or with air spaces inside when dried, sharply tapered at apex, 2–9 cm long, 3–10 mm diam.; cataphylls lanceolate, 6–11 cm long, acuminate at apex with subapical apiculum to 5 mm long, drying brown, persisting semi-intact at apex and eventually weathering into coarse, linear fibers. *Leaves* erect-spreading; petioles (2)6–28(32) cm long, 5–9 mm diam., spreading, C-shaped to thicker than broad, narrowly and deeply sulcate with obtuse to acute margins adaxially, rounded abaxially, the surface dark green, pale-speckled; geniculum slightly thicker and paler than petiole, 1–1.5 cm long; sheath 2.5–4 cm long; blades subcoriaceous to