

to be confused with any other. Its presumed closest ally is *A. bonplandii* subsp. *bonplandii*, which is much larger in overall size and occurs further to the west at lower elevations.

Anthurium yutajense is another relict species of the Guiana Shield which superficially resembles *A. maguirei*. The former is placed provisionally in sect. *Urospadix* because its leaf blades have a collective vein originating at the base, while leaves of *A. maguirei* have free-ending (except near the apex) primary lateral veins.

SURINAM. Table Mountain, 564 m, *Maguire 24218* (F, NY, US); Tafelberg, *Herbarium Suriname Forest Service 16571* (MO, U).

Anthurium manabianum Croat, sp. nov. TYPE: Ecuador. Manabí: Portoviejo-Pichincha, 12 km E of San Plácido, 450 m, *Harling & Andersson 24750* (holotype, GB 1304-9, 1304-10). Figures 191, 192.

Planta terrestriis aut epiphytica; petiolus 22 cm longus, 6–8 mm diam., complanatus; lamina late oblanceolata, 95.5 cm long, 27 cm lata; pedunculus 24 cm longus; stipes 2.5–3 cm longus; spadix cylindricus, 6.5–10 cm longus, 4 mm diam., purpureo-brunneus.

Description based on dried material only. Terrestrial; stem, roots and cataphylls unknown. *Leaves* spreading; petioles 22 cm long, 6–8 mm diam., apparently flattened adaxially, with sharply raised margins; geniculum slightly darker and scarcely thicker than petiole, 1 cm long; sheath 3 cm long; blades chartaceous (probably young), broadly oblanceolate, shortly acuminate at apex, long-attenuate at base, 95.5 cm long, 27 cm wide, broadest in the upper third, the margins slightly sinuate; both surfaces nearly matte, gray-green; midrib weakly and convexly raised toward the base, more prominently raised toward the apex above, prominently convex below; primary lateral veins ca. 27 per side, departing midrib at 40–50° angle, straight to the collective vein, convexly raised above, less conspicuously so below; interprimary veins absent except near the apex, almost as conspicuous as primary lateral veins; tertiary veins obscure above, weakly visible below; reticulate veins not visible; collective vein arising from near the base, as conspicuous as larger tertiary veins, 2–8 mm from margin. *Inflorescences* spreading; peduncle 24 cm long, 2 mm diam., 1.1 × as long as petiole, green, terete; spathe erect-ascending, chartaceous, green with numerous, conspicuous raphide cells, oblong-elliptic, 9–10 cm long, 1.3–1.5 cm wide, broadest at or near the middle, acuminate-caudate at apex (the acumen 10 mm long), obtuse-rounded at base;

stipe 2.5–3 cm long; spadix purplish brown, cylindrical, moderately curved, semi-erect, held at ca. 30–40° angle from peduncle, 6.5–10 cm long, 4 mm diam. throughout or 3 mm diam. near apex; flowers square, 1.2–2 mm long, 1.5–2 mm wide, the sides straight to smoothly or jaggedly sigmoid; 3–5 flowers visible in principal spiral, 5–8 in alternate spiral; tepals very weakly papillate; lateral tepals 0.9–1.1 mm wide, the inner margins rounded, weakly erose, the outer margins 3-sided; pistils not visible; stamens ± erect; filaments exerted 0.2–0.4 mm; anthers brownish yellow, 0.5–0.6 mm long, 0.2–0.4 mm wide; thecae oblong-ellipsoid, not divaricate. *Infructescence* not seen.

Anthurium manabianum is known only from the type specimen, collected in Ecuador in Manabí Province (hence the name) in a premontane wet forest life zone at 450 m.

This species is characterized by its broadly oblanceolate, thin, greenish drying blades which are shortly acuminate at the apex and attenuate at the base, and by its small, long-stipitate, weakly tapered, purplish brown spadix.

Anthurium manabianum appears to be superficially similar to *A. lennartii*; see discussion of that species for details.

ECUADOR. MANABÍ: Portoviejo-Pichincha, 12 km E of San Plácido, 450 m, *Harling & Andersson 24750* (GB).

Anthurium manuanum Croat, sp. nov. TYPE: Peru. Madre de Dios: Manú, Salvación a Gloria, 710 m, *Vargas 17747* (holotype, CUZ). Figure 192A.

Planta epiphytica; internodia ad 1.5 cm diam.; cataphyllum persistens intactum apud nodos superiores; petiolus 4.5–9 cm longus, 3–4 mm diam., D-formatus, adaxile sulcatus, margine et costa media manifeste elevata; lamina subcoriacea, oblanceolata, 26–39 cm longa, 7–12 cm lata. Inflorescentia tam longa quam petioli; pedunculus 8 cm longus; spatha linearis-lanceolata, 4–5 cm longa, 8 mm lata; spadix glaucus, cylindricus, 4.2 cm longus, 3–4 mm diam. Baccae ignotae.

Description based on dried material only. Epiphytic; stem 1.5 cm diam.; roots brownish gray, densely woolly-pubescent, elongate, at least 3 cm long, 1–1.5 mm diam.; cataphylls probably subcoriaceous, 3–7.5 cm long, acuminate at apex, brown to brownish gray, persisting intact at least at the upper nodes, probably persisting as a reticulum of fibers on the lower ones. *Leaves* erect to spreading; petioles 4.5–9 cm long, 3–4 mm diam., ± D-shaped, sulcate with the margins and medial rib prominently raised adaxially, ± rounded abaxially; geniculum slightly darker than petiole, ca.

0.5–0.9 cm long; sheath 1.5–2.3 cm long; blades subcoriaceous, oblanceolate, acuminate at apex (the acumen ca. 2 cm long, apiculate), long-attenuate at base, 26–39 cm long, 7–12 cm wide, broadest above the middle, the margins probably undulate; upper surface matte, lower surface matte to semi-glossy, both surfaces tan to dark brown; midrib prominently convex at base, becoming sharply acute toward the apex above, convexly raised and slightly darker than surface below; primary lateral veins 6–7 per side, departing midrib at 50–55° angle, straight, becoming arcuate-ascending to the margin or to the collective vein in the upper third of the blade, prominently raised above, flat to weakly raised below, slightly paler than surface; interprimary veins few, weakly raised above and below; tertiary veins prominulous, very weakly raised above and below; collective vein arising from near the apex, very weakly raised above and below, 4–7 mm from margin. *Inflorescences* erect, much shorter than leaves; peduncle 8 cm long, 1–2 mm diam., about equalling petiole, dark brown; spathe reflexed, subcoriaceous, brownish, linear-lanceolate, 4–5 cm long, 0.8 cm wide, broadest near the base, acuminate at apex, acute at base; stipe ca. (2)7 mm long in front, 1–2 mm long in back; spadix grayish brown, glaucous, cylindroid, held at 150° angle from peduncle, 4.2 cm long, 3–4 mm diam.; flowers rhombic, 1.9–2.3 mm long, 1.5–1.8 mm wide, the sides jaggedly sigmoid, sometimes straight; 6–7 flowers visible in principal spiral, 4–6 in alternate spiral; tepals densely papillate; lateral tepals 1.2–1.4 mm wide, the inner margins straight, occasionally broadly convex, pale, erose, the outer margins 2–3-sided, a few 4-sided; pistils with exposed area 0.6–1 mm diam., ± square; stigma ± ellipsoid; anthers yellowish, ca. 0.6 mm wide. *Inflorescence* not seen.

Anthurium manuanum is known only from Peru in the Department of Madre de Dios, in the Manú region (hence the name), at 260 to 840 m. It probably occurs in a subtropical moist forest life zone.

This species is distinguished by its short peduncle (about as long as the petioles), green, oblong-lanceolate spathe and short, oblong, glaucous spadix, with the tepals having more or less erose margins.

Anthurium manuanum is most likely to be confused with, and is perhaps most closely related to, *A. uleanum*, which occurs further to the north. *Anthurium uleanum* differs in having much longer petioles and peduncles and a longer, more slender spadix. *Anthurium manuanum* may also be con-

fused with *A. ernestii*, but differs mainly in having a conspicuously glaucous spadix.

PERU. MADRE DE DIOS: Manú, Salvación a Gloria, 710 m, *Vergas 17747* (CUZ); Prov. Manú, Cerro de Pantiacolla, Río Palotoa, 10–15 km NNW of Shintuya, 840 m, 12°35'S, 71°18'W, *Wächter 54* (F); Manú National Park, Cocha Cashu uplands, 400 m, 11°45'S, 71°0'W, *Núñez 5769* (MO); Tambopata, Comunidad Nativo de Inferno, Hermosa Chica, 260 m, 12°49'S, 69°20'W, *Alexiades & Pasha 972* (NY).

***Anthurium martianum* K. Koch & Kolb in K.**

Koch, *Wochenschr.* 11: 276. 1868. TYPE: Surinam? Cultivated. Engler's *Araceae Exsiccatae* #165 (lectotype, B; isolecotypes, GH, P). Figures 194, 194A, 196.

Habit unknown; stem short; internodes to 2.5 cm diam.; roots spreading, rather short, tapered; cataphylls coriaceous, oblong-lanceolate, to 12 cm long, acuminate at apex, drying tan, persisting semi-intact. *Leaves* erect-spreading; petioles (11)20–37 cm long, 5–12 mm diam., obtusely and narrowly sulcate adaxially, rounded abaxially; geniculum thicker than petiole, 3–4 cm long; blades (dried) subcoriaceous, oblong-elliptic to oblong-lanceolate, acuminate at apex (the acumen thick and inrolled), rounded to truncate (34)43–103 cm long, (6)20–38 cm wide, broadest slightly below or at the middle, the margins weakly undulate; upper surface semiglossy, dark green, paler below, both surfaces drying greenish gray to brownish; midrib raised above, slightly paler than surface, convexly raised below; primary lateral veins 18–24 per side, departing midrib at 55–85° angle, weakly curved to the collective vein, raised above and below; interprimary veins less conspicuously raised than the primary lateral veins; tertiary veins weakly raised above and below; collective vein arising from near the base, weakly raised above and below, 5–35 mm from margin. *Inflorescences* (dried) with peduncle 25–60 cm long, 4–7 mm diam., ca. 0.7–1 × as long as petiole, terete; spathe spreading to reflexed, subcoriaceous to coriaceous, green, lanceolate, 9.5–17 cm long, 1.5–4 cm wide, broadest near the base, inserted at 60° angle on peduncle, acuminate at apex (the acumen tightly inrolled, ca. 6 mm long), rounded at base; spadix maroon, sessile, tapered, weakly curved, held at 150–165(185)° angle from peduncle, 9–15 cm long, 7–11 mm diam. near base, 3–4 mm diam. near apex; flowers rhombic, 1.9–2.6 mm long, 1.6–2.1 mm wide, the sides mostly straight to smoothly or jaggedly sigmoid; 11–12 flowers visible in principal spiral, 12–18 in alternate spiral; tepals minutely