

ince, especially around Viñales, where it occurs on limestone cliffs at less than 300 m.

This species is distinguished at once by its rather small, oblong-ovate leaf blades with conspicuous basal veins (3 to 4 pairs) and more or less rounded to shallowly cordate leaf bases, and brownish green, tapered spadix.

*Anthurium venosum* is a distinctive species within the section, but has been confused with other species in the West Indies. Most notable perhaps is a population of plants on Jamaica in St. James Parish at 700 m, which resembles both *A. mancutiense* C. D. Adams and the present species. This was reported by Adams (1972) for Jamaica based upon Proctor 7977 and Proctor & Stern 11748. Although these specimens look more like *A. venosum*, a re-collection (Croat 69757) proves that it belongs to neither species and probably represents a new species not belonging to sect. *Pachyneurium*.

CUBA. NO FURTHER LOCALITY: *Wright 3209* (MO, NY, US); Cultivated at Havana Botanical Garden, *Croat 69756* (MO). PINAR DEL RÍO: 250 m, *Rutten-Pekelharing & Gillavry 425* (B), *Hermann 3183* (NY, US); Mogote de la Baudera Viñales, *Leon 14378* (NY); Mogote de La Jagua, La Jagua, Consolación del Norte, *Roig & Asary 2540* (NY); San Vicente, Viñales, *Leon 22746* (US); Sumidero, *Shafer 13378* (A, BM, NY, US); Baños San Vicente, *Britton et al. 7314* (NY, US); Viñales, *Killip 13583* (US); Viñales, Mogote de Santo Tomás, *Arias s.n.* (MO); Sierra de Viñales, *Ekman 16539b* (NY, US).

***Anthurium vinillense*** Bunting, *Phytologia* 64: 462–463. 1988. TYPE: Venezuela. Amazonas: Dept. Río Negro: hilly savanna, Serranía de Vinilla, ca 20 km SW of Mavaca, 2°26'N, 65°20'W, ca. 420 m, *Huber 6201* (holotype, VEN, isotypes, MO, NY). Figure 354.

Description based on dried material only. Usually terrestrial, sometimes epilithic, to ca. 35 cm tall; internodes short; cataphylls narrowly triangular, 5.5 cm long, narrowly acute at apex, drying reddish brown, the uppermost persisting semi-intact, promptly weathering to fibers. *Leaves* erect; petioles 3.2–5.2 cm long, less than 5 mm diam., C-shaped, weakly sulcate with raised margins and an obscure medial rib adaxially, rounded abaxially; sheathing to midway; 5.6–7.3 × as long as petiole; geniculum scarcely thicker and drying darker than petiole, ca. 0.5 cm long; blades coriaceous, elliptic to obovate-elliptic, acuminate at apex (the acumen short, with margins thickened and turned upward), acute to obtuse at base, 16–28 cm long, 4.3–9.5 cm wide, broadest at or slightly above the middle, 3–3.6 × longer than broad; upper surface incon-

spicuously punctate, lower surface densely dark glandular-punctate (those glands ca. 1.5 mm diam.); both surfaces drying yellow-green, glossy; midrib convexly raised on both surfaces; primary lateral veins 5–8 per side, departing midrib usually at ca. 10° angle from midrib, then spreading at 40° angle, moderately straight or weakly to markedly arcuate to the margin; collective vein lacking or arising from second to last primary lateral vein. *Inflorescences* erect, longer than leaves; peduncle 27–39 cm long, 5.6–7.3 × as long as petiole; spathe twisted, green, linear-lanceolate, to 6 cm long, 1 cm wide, thickened at base, inserted at 30° angle on peduncle, acuminate at apex (the acumen inrolled), decurrent for 7–10 mm at base, promptly drying and ultimately deciduous or nearly so; prominently and closely veined adaxially, densely purple-punctate adaxially (on surface and veins) with pale, short raphide cells; stipe 4–6 mm long; spadix green tinged with maroon, scarcely tapered at apex, erect, to 10.5 cm long, 5–6 mm diam.; flowers rhombic, 2–2.3 mm long, 1.6–1.9 mm wide, the sides moderately straight; 7–9 flowers visible in principal spiral; tepals obscurely pale-punctate; lateral tepals 1.6–1.9 mm wide, the inner margins broadly rounded, the outer margins 2-sided; pistils not at all exerted; stigma linear, 0.6 mm long; stamens held just above tepals in a tight cluster, inclined over and obscuring the pistil; anthers 0.4 mm long, 0.7 mm wide; thecae ovoid, moderately divaricate. *Inflorescence* with spathe withered, bearing berries in the basal fourth only; berries dark wine-red toward apex, paler to whitish in lower part, to 7 mm diam.; seeds 2 per berry, slightly flattened, 3.8 mm long, 2.6 mm diam.

*Anthurium vinillense* is endemic to Venezuela, known only from the type locality in the Serranía del Vinilla in southern Amazonas.

This species is characterized by its small size, short petioles that are sheathed to half their length, glandular-punctate, elliptic to subelliptic, coriaceous blades which dry with prominently raised reticulate veins on both surfaces, and dark wine-red berries.

*Anthurium vinillense* is closely related to both *A. xanthoneurum* and *A. bonplandii* subsp. *guayanum* and will perhaps prove to be only a subspecies of *A. bonplandii*. The type locality of *Anthurium vinillense* is a relatively remote and poorly explored area. *Anthurium bonplandii* subsp. *guayanum* has been collected in numerous localities to the north and south of the Serranía del Vinilla, but plants of subsp. *guayanum* are much

larger and never have the reticulate veins prominently raised.

VENEZUELA. AMAZONAS: Dpt. Río Negro, ca. 20 km SW of Mavaca, 420 m, 2°26'N, 65°20'W, *Huber 6201* (MO, NY, VEN).

***Anthurium wagnerianum*** K. Koch & Bouché, *Ind. Sem. Hort. Berol. App.* 7. 1853. TYPE: Venezuela. Caracas, *Wagner s.n.* (Type destroyed; cultivated at Vienna; Schott illustrations 542–544 serve as lectotype). Figures 335–338.

*Anthurium huequeense* Bunting, *Phytologia* 60(5): 295. 1986. TYPE: Venezuela. Cultivated at Jard. Bot. Maracaibo, originally collected by van der Werff in Falcón: Dpto. Zamora, delta of Río Hueque, Coro-Morón Hwy., 100 km E of Coro, *Bunting 7704* (holotype, NY, isotypes, MO, VEN).

Terrestrial, often epilithic; stem short, 1.5–3.5 cm diam.; roots moderately numerous, ascending to descending, greenish gray, often fuzzy or woolly-pubescent, thick, blunt, to 15 cm long, 2–7 mm diam.; cataphylls subcoriaceous, broadly lanceolate, 3–7 cm long, acute at apex, yellowish green weakly tinged with red, drying brown to reddish brown, usually with visible raphide cells, persisting semi-intact, eventually as coarse linear fibers. *Leaves* erect to erect-spreading; petioles (4)6–25 cm long, drying (1)4–10 mm diam., subquadrangular to trapezoidal or D-shaped, flattened to broadly sulcate to obtusely V-sulcate adaxially, with the margins sharply to bluntly raised, rounded to 3-ribbed abaxially; geniculum paler and thicker than petiole, becoming fissured transversely with age, 0.5–1.5 cm long; blades subcoriaceous to coriaceous, narrowly to broadly elliptic or oblanceolate, acute to obtuse or rounded at apex (the acumen briefly cuspidate), acute to attenuate at base, (8)17–70 cm long, (4)6–30 cm wide, broadest at or above the middle, the margins conspicuously wavy, minutely undulate when dried; both surfaces matte to weakly glossy to semiglossy, dark to medium green above, slightly paler below, with linear raphide cells conspicuous on drying (especially below), occasionally with pustules on either surface; midrib flat to weakly angular at base, becoming narrowly acutely raised toward the apex above, prominently 3-ribbed to convexly raised at base, becoming convexly raised toward the apex below; primary lateral veins (3)4–7 per side, departing midrib at 30–65° angle,  $\pm$  straight then arcuate close to margin, prominently and narrowly convex above, less narrow and prominent below; interprimary veins few, especially in juvenile leaves,

obscure; tertiary veins sunken to obscure above, weakly raised and darker than surface below; collective vein arising from near the apex, weakly sunken above, somewhat raised and darker than surface below, 2–10 mm from margin. *Inflorescences* erect to spreading, shorter than leaves; peduncle 8–54 cm long, 4–6 mm diam., (1)1.5–3  $\times$  as long as petiole, medium green tinged reddish at base, terete; spathe spreading to reflexed, subcoriaceous to moderately coriaceous, plain green to tinged with red-purple, lanceolate to broadly lanceolate, sometimes ovate, 2–6 cm long, 0.5–2 cm wide, broadest at or near the middle, inserted at 80–90° angle on peduncle, acute to acuminate at apex (the acumen inrolled, 2–5 mm long), obtuse to decurrent at base; spadix creamy to green to gray-green at anthesis, becoming red to purple-violet post-anthesis, cylindroid to weakly tapered, sessile or stipitate 1–25 mm, mostly erect, sometimes slightly curved, held at 130–180° angle from peduncle, (1.5)4–12.5 cm long, 5–12 mm diam. midway; flowers mostly square to occasionally 4-lobed, (1.2)1.6–3.1 mm in both directions, the sides straight to smoothly sigmoid; 5–10 flowers visible in principal spiral, 5–8 in alternate spiral; tepals matte, very minutely papillate, with pale protuberances when dried; lateral tepals 0.8–1.8 mm wide, the inner margins straight to convex, often broadly so, the outer margins 2-, occasionally 3-sided; pistils early-emergent, semiglossy, densely and minutely papillate, bright green; stigma linear to ellipsoid, 0.2–0.3 mm long; stamens emerging from the base, the laterals preceding the alternates by 6–13 spirals, the 3rd preceding the 4th by 3–6 spirals, held above the tepals in a circle around the pistil; filaments not exerted when dried; anthers creamy, sometimes tinged with pink, 0.6–0.9 mm long, 0.6–1 mm wide; thecae oblong-ellipsoid, not at all or only slightly divaricate; pollen faintly spicy scented, pale yellow to creamy white fading to white. *Inflorescence* spreading to pendent; spathe persisting, green; spadix to 13 cm long, to 2 cm diam., with berries scattered throughout; berries red to purple, oblong to obovoid, acute to mammilliform at apex, 6–8.2 mm long, 3.2–4.5 mm diam.; pericarp thickened, with numerous raphide cells; seeds 2 per berry, broadly ellipsoid or oblong-ellipsoid, 3.2–5 mm long, 1.6–3 mm diam., 0.8–1.6 mm thick, attached to carpel wall at radicle end by a thick strand of fibers running midway down the carpel to the basal end of the fruit.

*Anthurium wagnerianum* is known from the Cordillera Costal in Venezuela and from Curaçao