6–7(10) mm diam. near base, 4–6 mm diam. near apex; flowers rhombic, 4–4.6 mm long, 2.5–2.8 mm wide, the sides straight; 7–8 flowers visible in principal spiral, 5–6 in alternate spiral; tepals minutely papillate, semiglossy on drying; lateral tepals 2.3–2.8 mm wide, the inner margins broadly rounded, the outer margins 2-sided; pistils minutely papillate; stigma slitlike, 0.4–0.5 mm long; anthero 0.4–0.5 mm long, 0.5–0.6 mm wide, contiguous, obscuring pistil; thecae oblong, not at all or slightly divaricate; pollen fading to white. Fruit unknown.

Anthurium cowanii is known only from the Kaieteur Plateau in gallery forest along the Potaro River in Guyana at 470 m, where it was reported as an epiphyte in a premontane moist forest life zone (though the area is mostly savanna).

This species is characterized by its large, oblanceolate and short-petiolate leaf blades which dry greenish gray above and more brown and semiglossy below. Also, the dark purple-red, tapered spadix on a peduncle much longer than the petioles is an important distinctive feature. Anthurium covanii is not likely to be easily confused with any other species, but A. loretense and A. vaupesianum, from lowland western Amazonia, may bear a resemblance in the color of the leaf blades on drying.

Anthurium cowanii has been cultivated at the New York Botanical Garden. An herbarium voucher at NY, prepared in 1948, was made from a living plant brought back as Maguire & Fanshawe 26173, from the Potaro River Gorge, but no field voucher has been located. The cultivated specimen resembles field-prepared specimens of A. cowanii quite well, but leaf blade shape is more obovate-oblanceolate (vs. oblanceolate).

The species is named in honor of Richard S. Cowan, who collected in the Guiana region in the early 1950s and early 1960s and who, with T. R. Soderstrom, collected most of the known material of A. cowanii.

GUYANA. Kaieteur Plateau, Potaro River, ca. 1 mi. above Kaieteur Falls, 470 m, Cowan & Soderstrom 2230 (BH, K, NY, US), 1758 (BH, US); (cultivated), Maguire & Fanshawe 26173 (NY).

Anthurium crassinervium (Jacq.) Schott, Weiner Zeitschr. 1825: 828. 1825. Pothos crassinervia Jacq., Icon. Pl. Rar. 3 (1793), t. 609, Coll. 4. 122. TYPE: t. 609 serves as the type. Figures 104, 105, 109, 110.

Anthurium ellipticum K. Koch & Bouché, Ind. Sem. Hort. Berol. App. 6. 1853. TYPE: Venezuela. Caracas, Gollmer s.n. (lectotype, B; photo seen (Field Mus. Neg. #F-011915)).

Muls. Neg. #F-011913).

Anthurium rugosum Schott, Oesterr. Bot. Z. 8: 387.

1858. TYPE: Venezuela: Caracas, Gollmer s.n. (B, lectotype; photo seen (Field Mus. Neg. #F-012065)).

Anthurium egregium Schott, Prodr. 475. 1860. TYPE: Schott Aroideae 486 (microfiche #13 A 10) serves as the lectotype (W).

Anthurium fontanesii Schott, Bonplandia 10: 347. 1862. TYPE: Locality unknown, from a cultivated source; Field Museum Photo 29816 serves as the type. Anthurium preussii Engl., Pflanzenr., IV. 23B(Heft 21):

68. 1905. TYPE: Venezuela. Carabobo: Porto Cabello, *Preuss* 1552 (holotype, B; isotype, BM).

Epiphytic, epilithic or terrestrial, sometimes colonial; stem short, 2.5-4 cm diam.; roots dense, ascending, smooth; cataphylls subcoriaceous, 7-13 cm long, acute at apex, drying medium brown (B & K yellow 4/7.5), persisting \pm intact, weathering into reticulum of fibers. Leaves erect to spreading; petioles 3-33.5 cm long, 4-11 mm diam., D-shaped to quadrangular or thicker than broad, broadly and shallowly sulcate to V-sulcate, rarely narrowly sulcate adaxially, the margins acute, rarely inclined inward, flattened to rounded or 3-5-ribbed abaxially; geniculum somewhat thicker and paler than petiole, 0.8-2 cm long; blades moderately coriaceous, oblanceolate, gradually acuminate or rarely rounded at apex, acute to somewhat obtuse at base, 25-142 cm long, 11-52 cm wide, broadest usually above the middle, the margins undulate; both surfaces matte to semiglossy, slightly paler below, often pale-pustulate and/or with pale or dark punctations; midrib flat with a conspicuous medial rib near the base above, becoming acutely raised near the middle, sharply raised below, sometimes 3-ribbed at base; primary lateral veins 6-14 per side, departing midrib at 40-70° angle, ± straight or arcuate to the margin, prominently raised near the midrib above, then sunken and merging with margin, raised below, drying raised and paler on both surfaces; interprimary veins not apparent; tertiary veins flat and slightly visible above, visible and darker than surface below; collective vein arising in the upper 1/3 or in the upper 1/4 of the blade, prominulous when dried. Inflorescences erect to spreading; peduncle (13)20-98 cm long, 5-12 mm diam., $1-3(5)\times$ as long as petiole, terete, sometimes ribbed near the base of spathe; spathe spreading to reflexed, moderately thin, green, sometimes tinged with purple, lanceolate, 8-12.5 cm long, 1.5-2 cm wide, broadest near the base, often decurrent at base; spadix dark purple or violet to green or green tinged with purple, tapered, sessile or stipitate to 12 mm, (6)1233 cm long, 7-10 mm diam. near base, 4-7 mm diam. near apex; flowers rhombic to 4-lobed, 2.4-3.1 mm long, 1.6-2.8 mm wide, the sides jaggedly sigmoid; 7-10 flowers visible in principal spiral, 5-10 in alternate spiral; tepals matte; lateral tepals 1.2-1.5 mm wide, the inner margins rounded, tinged with violet-purple; pistils emergent, violetpurple; stigma linear, 0.5 mm long; stamens emerging from the base of the spadix, laterals emerging to midway followed by alternates in rapid succession, arranged in a circle around the pistil just above the tepals; anthers pale orange (B & K yellow-red 8/7.5) 0.7 mm long, 1 mm wide; thecae ovoid, slightly divaricate; pollen pale orange, white when dried. Infructescence pendent; berries red, ovoid, basally attached to spadix by 4 tepalar fibers, 7.6-8.2 mm long, 3-3.5 mm diam. on rehydration; pericarp studded with raphide cells; seeds 1-2 per berry, pale yellowish, with raphide cells, ellipsoid, 3.6-4.4 mm long, 1.6-2.2 mm diam., 0.8-1.6 mm thick, with a mucilaginous apical appendage.

Anthurium crassinervium ranges throughout northern Venezuela in the states of Aragua, Carabobo, Falcón, Lara, Mérida, Miranda, Portuguesa, Táchira, Trujillo, Yaracuy, Zulia, and the Distrito Federal, from sea level to 1,800 m. It has also been found in Colombia in the departments of Cesar, Guajira, Magdalena, and Santander from 400 to 1,600 m, and on Curaçao in the Netherlands Antilles at 350 m. The species is ecologically quite variable, occurring in tropical moist, tropical dry, premontane wet, premontane wet (transitional to warm), premontane moist, premontane dry, subtropical dry, and subtropical thorn forest transitional to subtropical dry forest.

Although quite variable in size, A. crassinervium can be recognized by its lanceolate, usually acute at the base blades with undulate margins and often with pustular or pale to dark punctations on the abaxial surface, by its lanceolate and sometimes early-deciduous spathe, tapered spadix, and red berries with the seeds attached apically to the carpel wall by a mucilaginous appendage.

Some exceptional collections that should be mentioned are tentatively placed here. Two, Bunting & Holmquist 4327 and 4328, from Bolívar State in Venezuela (the only collections known from Bolívar), are quite typical for the species except for the unusually large leaf blade size and the unusually high number of flowers in the primary spiral (11 flowers per spiral). Another collection of note is Bunting 4397, from Táchira, with 13 flowers in the primary spiral, and a spathe 5 cm broad. The

overall size of the latter plant is reported to be unusually large. Several collections from lower elevations north of the Cordillera de la Costa, especially those from near Cata in Aragua, Venezuela (Bunting 2197, 2198, 2199, 2200, 4353, 13501, 13508, 13509, 13510, 13511), are unusual in having the petioles narrowly sulcate and sometimes with the margins convergent adaxially. While this material is interpreted by Bunting (pers. comm.) as A. ellipticum, the original description of A. ellipticum makes no mention of petiole shape, and subsequent illustrations by Schott (1984) and Engler (Engler's Araceae Illustrations No. 249) show the petiole as shallowly and broadly sulcate with inconspicuous margins adaxially. Petiole shape in A. crassinervium is highly variable, and the Aragua specimens exhibit just one of the extremes. Curiously, in his 1905 revision, Engler illustrated Anthurium ellipticum (fig. 22) as having a prominently sulcate petiole with the margins curved inward. There is no indication that A. ellipticum is out of the range of variation in A. crassinervium; however, the illustration of A. ellipticum in Das Pflanzenreich represents a plant like those mentioned above from near Cata. These may represent a distinct taxon, perhaps a subspecies of A. crassinervium. In addition to the petiole cross-section differences, these plants also have longer, more tapered spadices, and are always epilithic or terrestrial (often in sand). This taxon, if recognized, would probably include A. preussi, described from a similar area near Puerto Cabello, and perhaps also A. fontanesii, but not A. ellipticum. Petiole shape in A. crassinervium is highly variable, and this represents just one of the extremes.

Anthurium crassinervium is closely related to A. wagenerianum, but the latter generally has a short, stout spadix and a short, broadly lanceolate spathe. Its leaf blade margins are minutely undulate in dried specimens, instead of wavy, and are apically cuspidate, instead of acute. Furthermore, the lower leaf epidermis in dried specimens of A. wagenerianum is not highly light-reflective at low magnifications, and the concentric epidermal cell pattern observed in A. crassinervium is not apparent. The fruits of A. wagenerianum are distinctive as well. See that species for further details. Engler distributed several specimens that he determined as A. wagenerianum, but which have a markedly tapered spadix like that of A. crassinervium and therefore have been included there.

The range of A. crassinervium overlaps that of another species which possibly could be confused with it, namely A. fendleri, but the latter can be distinguished by its usually thinner blades that are usually narrowly rounded to subcordate at the base, and by its thin, caducous spathe.

Anthurium bonplandii subsp. guayanum might also be confused with A. crassinervium, as both have similarly shaped leaves that are pustular or punctate abaxially. The petiole of the former is C- or D-shaped and rounded abaxially, while the latter usually has quadrangular petioles which are usually ribbed abaxially. The berries of A. bonplandii subsp. guayanum are rather dry upon rehydration, and its seeds are attached by a band of fibers. Anthurium crassinervium, in contrast, has the more typical seed for sect. Pachyneurium, attached to the berry by a mucilaginous appendage.

Pothos crassinervia Jacq. was depicted in Curtis's Botanical Magazine (t. 2987) by J. D. Hooker in 1830 and was said to have come from Demerara (Guyana); however, this was a living collection sent by James Fraser, Esq., and was possibly not locally collected. To date there are no indications the species occurs in the Guianas.

Lectotypification has been necessary in the cases of A. crassinervium, A. ellipticum, A. rugosum, A. egregium, and A. fontanesii. In the first case, Jacquin clearly described his new species, Pothos crassinervia, in 1790, while his illustration, here lectotypified, was not published until 1793. In the second case, Koch mentioned no specimen in his original description of A. ellipticum, but did say that it occurred outside of Caracas, and that it was "brought to Europe by the famous Moritzi from Caracasan regions" (translated from Latin by Dan Nicolson, pers. comm.). It is unclear whether he was referring to a Moritzi collection, but it is likely that he had seen the May 1852 Gollmer collection that is here lectotypified, perhaps after its having been brought to his attention by Moritzi. In the third case, Schott described A. rugosum in 1858, citing no specimen. However, in 1860, in his Prodromus, he mentioned both a Gollmer and a Wagener collection; the Gollmer collection has here been accepted as the lectotype. In the fourth case Schott described A. egregium in 1860, again citing no specimen. His plate of drawing 482 deposited at W and represented by microfiche number 13A-7 in his Icones Aroideae et Reliquiae, serves as the lectotype of this species. Lastly, Schott cited no specimens in his original description of A. fontanesii, citing only that it was cultivated at Schönbrun. His illustration 496 serves as the type.

NETHERLANDS ANTILLES. CURAÇAO: 350 m, Wilde 6.A (WAG). COLOMBIA. CÉSAR: Sierra Nevada de Santa Marta, SE slopes, Donahui, along trail to Chimencumena, 1,300 m, Plowman & Davis 3699 (COL, GH); road from La Paz to Manaure, 460 m, Cuadros & Gentry 3468 (MO),

3465 (MO), Guajira, Serranía La Macuira, SE edge of Cerro Huararech region, 550 m, Sugden 63 (K); Cerro Manzano, 500-760 m, Saravia 2424 (COL, US); Guasaira, 600-750 m, Saravia & Saravia 3561 (COL, US); Palua, 650 m, Sugden 216 (COL, FHO, K). MAGDALENA: Sierra de Pireja, E of Manaure, Hacienda Nuevo Horizonte, El Podrido, 1,550-1,600 m, Cuatrecasas & Romero C. 25375 (US); Mpo. Santa Marta, Constante-Pueblito, 100-400 m, Romero C. 8023 (COL). SANTANDER: Río Lebrija, NW of Bucaramanga, 400-700 m, Killip & Smith 16298 (US). VENEZUELA. Cult. Berlin, Engler 193 (GH). ARAGUA: vic. Cata, Bunting 4493 (MO); 50 m, Bunting 4355 (NY); Ocumare de la Costa-Cata, above Playa de Cata, Bunting 2197 (MY), 2198 (NY), 2199, 2200 (MY); Dtto. Girardot, Cata-Catica, 10-100 m, Badillo 4904 (MY); Henri Pittier National Park, < 50 m, Carnevali et al. 2329 (VEN); Ocumare-Turiamo, Bunting & Holmquist 1978, 1979 (NY); Maracay-Ocumare, 0.5-2 km NW of Rancho Grande, hillsides of Cordillera de la Costa, 1,200 m, Bunting 2015 (NY); near Rancho Grande, 1,200 m, Bunting 1966 (NY); Cerro La Mesa, 1,500-1,900 m, Bunting 4721 (NY); La Cumbre de Rancho Grande trail, 1,200-1,300 m, 10°21'N, 67°39'W, Bunting 3266 (MY), Davidse et al. 16732 (VEN); Cata-Cuyagua, 8-9 km E of Cata, 400 m, 10°29'N, 68°42'W, Bunting et al. 13501, 13508, 13509, 13510, 13511 (MO); Colonia Tovar-El Limón, Bunting 2146 (NY). BOLÍVAR: Altiplanicie de Nuria, 500 m, Bunting & Holmquist 4327, 4328 (MY). CARABOBO: Puerto Cabello, Preuss 1552 (B, BM), Bunting 4353 (NY); Quizandal, Trujillo 9581 (MY). DISTRITO FEDERAL: Caracas Higuerote, Bunting 3275 (NY); Caracas-La Guaira, Rose & Rose 21753 (US); 25 km E of La Guaira by air, 4 km E of Naiguatá on road to Los Caracas, 0-60 m, 10°38'N, 66°42'W, Liesner & Steyermark 12324 (MO), Bunting 2144-1 (MO); 2 km E of Los Caracas, Bunting & Steyermark 2144-2, 2144-3 (NY); Maiquetia, 40 m, Andre 289 (K); Silla de Caracas, 1,300 m, Elias 475 (F); Caracas Botanical Garden, 870-980 m, Berry s.n. (MO), Braun 9 (VEN), Croat 38338 (MO, PMA, SEL, US), 54412, 54415 (MO), 54416 (CM, MO), 54418 (CM, F, MO); Cerro El Avila, Quebrada Chacaito, 1,600 m, Manara s.n. (VEN); Río Macarao, Montes 74, 279 (VEN); Río San Julian, just above Carrabelleda, 10-300 m, Bunting 2050 (NY), 2050 N, 2050 J (NY). FALCÓN: Cerro Socopo, 1,200-1,560 m, 10°29'N, 70°48'W, Liesner et al. 8356, 8386 (MO, VEN); Parque Nacional Quebrada de la Cueva El Toro, trail to La Piedra, 600-900 m, 10°50'N, 69°7'W, Liesner et al. 7864 (MO, VEN); Sierra de San Luís, Curimagua-San Luís, 1,300-1,400 m, Stevermark 99149 (NY, US, VEN); Sierra de San Luís, Coro-Churumagua, 450 m, Bunting 2844, 2846 (NY); Dtto. Bolívar, El Puente, 340 m, Ruiz et al. 481 (VEN); Dtto. Silva, Cerro Chichiriviche, above Soledad, 200 m, 10°51'N, 68°20'W, Stevermark & Manara 110812 (MO, VEN); Dtto. Zamora, Cerro Mamoostal, 400 m, 11°27'N, 69°17'W, González 1068 (MO, VEN). LARA: Sanare-Yacambú, road through Parque Nacional Yacambú, 7.6 km past entrance, 1,500 m, 9°42'N, 69°36'W, Croat 54698 (MO); Humocaro Alto-La Palma, 1.5 km S of La Mesa, 1,280 m, 9°35′N, 70°01′W, Croat 60621 (CM, K, MO, RSA); Dtto. Jiménez, Alto del Viento-Cerro Pando, 1,000-1,700 m, 9°39-42'N, 69°34-36'W, Davidse & González 21186 (MO); dirt road 17 km E of Duaca, 1,200 m, 10°17'N, 69°02'W, Croat 60617 (AAU, MO, VEN); Dtto, Torres, Lara-Zulia, Agua Linda, ca. 35 km E of El Venado, 1,300 m, Bunting & Fucci

13475 (NY); 1,100-1,200 m, Bunting & Stoddart 9753 (NY). MÉRIDA: Mérida-La Azulita, La Chorrera (waterfalls N of hwy.), between Las Cruces and La Calera, 8°35'N, 71°16'W, Croat 54794 (MO); 28 km W of Mérida-El Vigia intersection, 1,120 m, Bunting 2602, 2602J (MY, NY); 9 km above Plaza Bolívar in La Azulita, SE of La Azulita, 1,590 m, 8°44'N, 71°26'W, Croat 54856 (MO); Mérida-Lagunilla, ca. 2 km S of Mérida, near intersection with road to La Azulita, Bunting 2740 (MY, NY); Mérida-El Vigia, 26 km above El Vigia, 850 m, Bunting 2309B (MY, NY); Caño Zancudo-La Azulita, border of Caño Blanco (Puente Hierro), Bunting 4382 (MY); 6 km above Caño Zancudo, near bridge across Caño Ron (second bridge), Bunting 2798 (MY); El Vigia-Tovar, Km 5, 3 km S of junction to Mesa Bolívar, 5 km N of Santa Cruz de Mora, 450 m, 8°26'N, 71°44'W, Croat 54877 (B, MO); 5 km N of El Morro, 1,800 m, 8°25'N, 71°10'W, Hahn & Grifo 3320 (MO); Montaña Salinas, Mesa Bolívar, 1,300-1,400 m, Bernardi 633 (NY); Tovar de Mérida-Panamerican Hwy., 2 km above Zea, 975 m, Bunting 2574 (NY). MIRANDA: Los Caracas-Higuerote, 1 km E of Osma, Bunting 3298 (CM, MO, NY); Morros de la Guairita, 880-1,000 m, Berry 1829, 1897 (VEN); Quebrada Garita headwaters, N of Mérida, Vista Linda, 1,000 m, 10°26'N, 66°49'W, Steyermark & Berry 111961 (VEN). PORTUGUESA: 15 km E of Chabasquen, 67 km NNW of Guanare, 1,450-1,520 m, 9°26'N, 69°54'W, Stevermark et al. 126795 (MO). TÁCHIRA: Lobatera-Urena, 13 km NE of Lobatera, near La Victoria, 3,650-3,750 ft., Bunting 2352 (MY, NY); 1,216-1,250 m, Bunting 2351, 2351 J (MY, NY); Rubio-San Antonio, 11 km W of Rubio, Bunting 11665 (NY); Rubio-Las Delicias, 2 km above Matamulas, 14 km N of Las Delicias, Bunting 4397 (MY); 6 km above Las Delicias, 5,500 m, Bunting 2313B (MY), Bunting 2313A (NY); San Cristóbal-Santo Domingo del Táchira, Agua Dulce, Bunting 2372 (MY); 10 km E of La Fundación, Represa Dorada, 600-1,000 m, Liesner & González 10189, 10329 (VEN); 35 km SSE of San Cristóbal, La Buenana, 6-12 km W of Quebrada Colorado, 600-1,200 m, 7°28'N, 72°09'W, Liesner & González 10865 (VEN); Pregonero-La Fundación, 19 km S of Pregonero, 1,200 m, 7°57'N, 71°45'W, Croat 54948 (MO); San Cristóbal-Delicias, 45 km SW of San Cristóbal, 19 km N of Delicias, 1,300 m, 9°42'N, 72°25'W, Croat 55031 (MO); San Cristóbal-Chorro del Indio-Caño Seco-La Florida, 1,100-1,200 m, Bunting 11645 (NY); 1,100 m, Bunting 13403 (NY); San Cristóbal-Cordero, San Rafael-Cordero, 900-1,000 m, Bunting 4814 (NY); Maracay-Choroni, 19 km from Maracay, along S slope of northern cordillera, 1,280-1,300 m, 10°18'N, 67°24'W, Croat 54499 (CAS, F, MO); La Fria, at Las Pavas, along Caño Aguas Calientes, 125-200 m, Bunting 13390 (NY); La Grita-Pueblo Hondo, ca. 7-8 km N of La Grita, 1,600-1,700 m, Bunting 11668 (NY); Dtto. Ayacucho, Bunting & Chacón 4983 (MO, NY); Dtto. Junin, Villa Paez-Betania, 2,050-2,350 m, Bunting 4958 (NY); Dtto. Cárdenas, above Palmira, 1,800 m, Bunting 4847 (MO); Dtto. Cárdenas, on the outskirts of Cordero, 1140 m, Bunting 4864 (NY); above Palmira on the outskirts of San Cristóbal, 1,800 m, Bunting 13451, 13452 (NY); Dtto. Lobatera, La Cazadora, 1,600 m, 7°55'N, 72°18'W, van der Werff & Ortiz 5614 (MO); 2,000 m, van der Werff & Ortiz 5450 (MO). TRUJILLO: Agua Viva-Carora, 20 km NE of Agua Viva, E of Valerita, 150 m, Bunting 2822 (MY). YARACUY: on road to Candelaria, 7.5-8 km N of Salom, NE of Nirgua, W of Valencia, 1,200 m,

10°11'N, 68°30'W, Croat 54652 (MO, RSA); Cerro La Chapa, N of Nirgua, 1,200-1,360 m, Steyermark & Bunting 97722 (VEN); on the outskirts of Aracal, ca. 7 km NW of San Felipe, 600-800 m, Bunting 2003 S (NY). ZULIA: Perijá, 1,175 m, Gines 1926 (US); Serraniá de Perijá, Río Omira-kuna (Tumuriasa), near Colombian border, SE of Pishikakao and Iria, 1,470-1,560 m, Steyermark et al. 91156 (MO, VEN); Hacienda Los Chorros, 600 m, Ferrari & Trujillo 1535 (MY); Dtto. Mara, Puesto "El Bosque" de la Guardia Nacional, 1,450-1,600 m, 10°47'N, 72°40'W, Bunting et al. 12068 (MO), 12227 (MO, NY); Dtto. Mara, river basin of Río Guasare, outskirts of Destacamento Guasare, 600-700 m, Bunting et al. 12810 (NY); Cumbre de Rancho Grande trail, 1,200-1,300 m, 10°21'N, 67°39'W, Bunting 3266 (MY).

Anthurium crenatum (L.) Kunth, Enum. Pl. 3: 75. 1841. Pothos crenata L., Sp. Pl. ed. 2: 1373. 1763. TYPE: Virgin Islands: St. Thomas, C. Plumier illustration published by J. Burman, Plant. Amer. Fasc. t. 39. 1756 serves as the type. Figures 106, 111, 115.

Anthurium acaule var. portoricensis Kuntze, O. Ktze. Rev. Gen. 2:738. 1891. TYPE: Puerto Rico, Kuntze s.n. (holotype, MO; isotype, K).

Anthurium acaule var. brevipes Engl., Bot. Jahrb. Syst. 25: 362. 1898. TYPE: Puerto Rico, Sintenis 1582 (holotype, B; isotype, K).

Epiphytic or epilithic, sometimes forming dense clumps; stem to 9 cm long; roots moderately dense, spreading to descending, pale green pubescent, elongate, blunt, 3-4 mm diam.; cataphylls subcoriaceous, narrowly lanceolate, weakly 1-ribbed near apex, 9.5-13 cm long, narrowly acute at apex with a subapical apiculum, light green, drying reddish brown (B & K yellow 5/2.5), persisting semi-intact, eventually deciduous. Leaves erect to spreading; petioles 2.5-29.5 cm long, 4-17 mm diam., sharply to bluntly D-shaped, shallowly and broadly sulcate adaxially, the margins sharp but not raised, rounded to 3-ribbed abaxially, the surface weakly pale-speckled; geniculum slightly thicker and paler than petiole, 0.6-1.3 cm long; blades moderately coriaceous, broadly to narrowly oblanceolate or elliptic, sometimes ± oblong, acute to acuminate at apex (the acumen apiculate), acute (rarely weakly subcordate) at base, (18)23-100 cm long, 4-28 cm wide broadest near or above the middle, the margins sinuate to undulate; upper surface semiglossy, medium to dark green, lower surface weakly glossy to semiglossy, paler; midrib acutely angled at base, gradually becoming weakly sunken near the apex above, prominently higher than broad at base, becoming prominently convex toward the apex below, paler than surface; primary lateral veins 8-18 per side, departing midrib at