
NEW AND NOTEWORTHY TAXA FROM PANAMA¹

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ABSTRACT

Three new species, *Prunus fortunensis* (Rosaceae), *Symplocos panamensis* (Symplocaceae) and *Angostura kunorum* (Rutaceae), as well as four new generic records for Panama are described.

Botanical exploration of Panama has been going on for decades and yet many species still remain undiscovered. Collecting trips made in 1986 to such western Panamanian sites as the Fortuna Dam area, the Bocas del Toro slope above Chiriquí Grande, and Cerro Colorado could be counted on to yield new species as well as new records, some of them generic, for the Panamanian flora. Moreover, other rich but long-accessible areas such as the El Llano to Carti strip, Santa Rita Ridge, and Cerro Jefe continue to yield novelties. For the most part these are not fully appreciated until they reach the hands of appropriate specialists and then, typically, are published only after some delay. In some cases, however, it is possible to readily evaluate the collections of special interest, and the following three species are here described as new.

Prunus fortunensis McPherson, sp. nov. (Rosaceae). TYPE: Panama. Bocas del Toro: Fortuna Dam region, 1,250–1,300 m, 11 Feb. 1986, *McPherson 8404* (holotype, PMA; isotypes, CAS, CR, DUKE, K, MEXU, MICH, MO, US, UTD). Figure 1.

Species combinatione foliorum parvorum integrorum glabrorum cum inflorescentia racemosa et floribus parvis circa 10-stamineis a congeneribus regionis diversa.

Tree 14 m; branchlets glabrous, somewhat longitudinally striate in older portions, the slightly raised lenticels 0.5–1 mm long; nodes marked by raised leaf scars, these pubescent along their adaxial margin when newly exposed, glabrescent. Leaf blades elliptic to slightly ovate, 3.5–6 cm long, 1.4–3 cm wide; base obtuse; apex acuminate, ultimately narrowly obtuse; margin entire; both surfaces glabrous, the laminar glands usually 1 pair, intramarginal, basal; secondary veins 5–6(–7) on each side of the midrib, all of the venation slightly impressed on the upper surface, the midrib alone raised on the lower surface. Petioles 5–8 mm long, caniculate, glabrous. Stipules triangular, 1.5–2 mm long, 1 mm wide at base, caducous. Inflorescences in the axils of leaves of the current season, racemose, 3–5.5 cm long, glabrous; peduncle 6–10 mm long, bearing 14–20 flowers; pedicels 2–4 mm long; bracts small, absent at anthesis. Hypanthium campanulate at anthesis, glabrous, 1–1.5 mm long from base to rim; lobes

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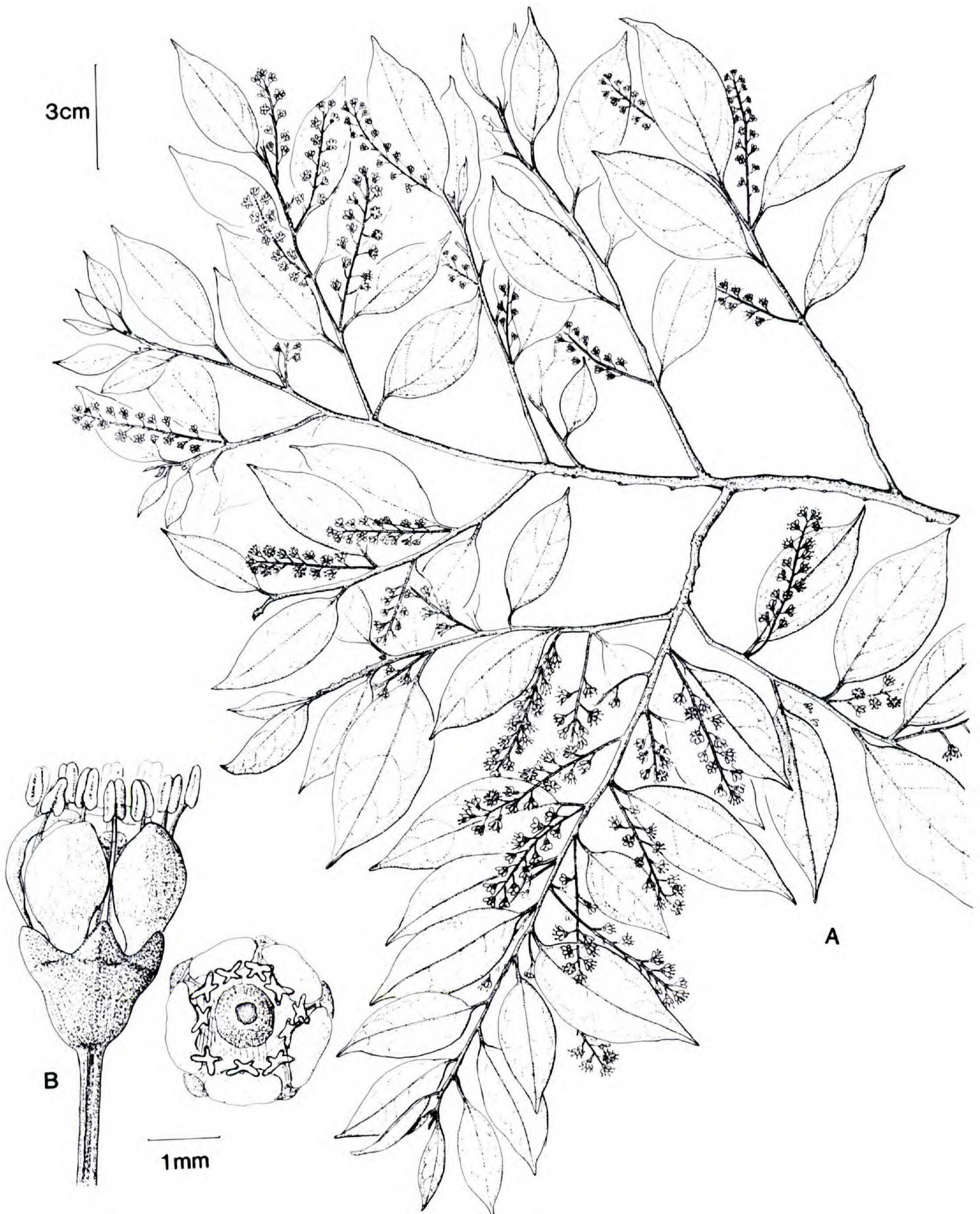


FIGURE 1. *Prunus fortuneensis* (McPherson 8404).—A. Flowering branchlet.—B. Flower, lateral and top views.

ca. 0.6 mm long, 1 mm wide at the base, obtuse, somewhat cucullate. Petals white, roughly circular, 1–1.5 mm diam., entire. Stamens 9–11(–15), 1.8–2 mm long, the an-

thers ca. 0.5 mm long. Ovary ca. 1 mm diam., glabrous; style 1.5–2 mm long, glabrous; stigma flattened, 0.5–0.8 mm wide. Fruit unknown.

This species is distinguished from its congeners in the region (*P. annularis* Koehne, *P. brachybotrya* Zucc.) by its combination of small, entire, glabrous leaves, racemose inflorescence, and small flowers with ca. 10 stamens.

Symplocos panamensis McPherson, sp. nov. (Symplocaceae). TYPE: Panama. Colón: Santa Rita Ridge, ca. 500 m, 16 Feb. 1986, *McPherson 8447* (holotype, PMA; isotypes, BM, CAS, COL, CR, DUKE, K, L, MEXU, MICH, MO, NYBG, US, UTD). Figure 2.

Species pilis appressis, foliis chartaceis fere glabris dentatis a paucis nervis, petiolis brevibus, sepalis partim pubescentibus, corollis 11–16 mm fere glabris, floris 40–45-stamineis, stylis aliquantum pubescentibus omnino a congeneribus regionis diversa.

Tree 10–12 m; twigs pale in color, somewhat flattened, the youngest often channeled (at least on drying); young stems and buds white pubescent, the buds densely so, the hairs strongly appressed, those of the stem not dense, \pm persistent but becoming sparse on older stems. Leaf blades obovate-elliptic to elliptic, 7–21 cm long, 2.7–7.2 cm wide, thinly chartaceous; base usually somewhat attenuate and narrowly obtuse, sometimes acute; apex acuminate; margin entire proximally, denticulate to dentate distally, often pubescent; upper surface glabrous, the lower surface pubescent while immature but glabrous or nearly so at maturity, a few hairs sometimes remaining near the base; midrib adaxially sunken over most of its length, raised abaxially, pubescent with white, appressed hairs; secondaries 5–6(–8) on each side of the midrib, somewhat arcuate, puberulent. Petiole 2–5(–7) mm long, channeled and glabrous adaxially, appressed-pubescent abaxially. Inflorescences axillary, the subtending leaf often fallen; axis 1–5 mm long, pubescent, bearing (1–)3–7 flowers; bracts several, the peduncular bracts densely pubescent abaxially, the pedicellar bracts less so, all glabrous adaxially. Hypanthium 1 mm long, glabrous or sparsely pubescent. Calyx lobes white, 5, 1.5–2 mm long, 1.5–2 mm wide at

the base, obtuse, pubescent abaxially along the midline with white, appressed, somewhat flexuous hairs; margins pubescent. Corolla white, of 4–6 partly fused petals 11–16 mm in length and connate near the base, adnate to androecium about halfway up, the spreading portion of the lobes typically ca. 4 mm long, 2–5 mm wide, glabrous or sparsely puberulent with appressed hairs, occasionally bearing a misshapen anther apically. Stamens 40–45, exserted, the filaments straplike, the free portions of the outer ones up to 5 mm long, 0.7 mm wide, the inner stamens shorter, narrower, and somewhat inflexed. Ovary 3-locular; ovules 4 per locule, the superior portion of the ovary ca. 1 mm long, pubescent; style 9–11 mm long, at least sparsely pubescent over its entire length; stigma capitate, ca. 1 mm diam. Fruit unknown.

This species differs from other *Symplocos* species of the region (*S. austin-smithii* Standley, *S. chiriquensis* Pittier, *S. serrulata* Humb. & Bonpl., *inter alia*) in its appressed hairs, thin, nearly glabrous, distally dentate leaf blades with few secondaries, short petioles, only partially pubescent sepals, nearly or quite glabrous, rather long corolla, 40–45 stamens, and styles pubescent their entire length.

Additional specimen examined. PANAMA. DARIÉN: Cuasi-Cana trail on Cerro Campamineto, east of Tres Bocas, headwaters of Río Cuasi, 29 Apr. 1968, *Kirkbride & Duke 1246* (MO).

Angostura kunorum McPherson, sp. nov. (Rutaceae). TYPE: Panama. San Blas: along El Llano–Carti road, ca. 14.5 mi. from Interamerican Highway, ca. 350 m, 17 June 1986, *McPherson 9525* (holotype, PMA). Figure 3.

Species 5–7-foliolatis, foliolis grandibus latis, inflorescentia anguste paniculata, alabastris rectis petalis valvatis, androeciis omnino fertilibus a congeneribus diversa.

Slender tree 4 m tall; young, leaf-bearing stems ca. 1 cm diam., roughened by many small ridges (at least on drying), conspicuously lenticellate, brown puberulent with a mixture of erect, curved, whitish hairs and minute,

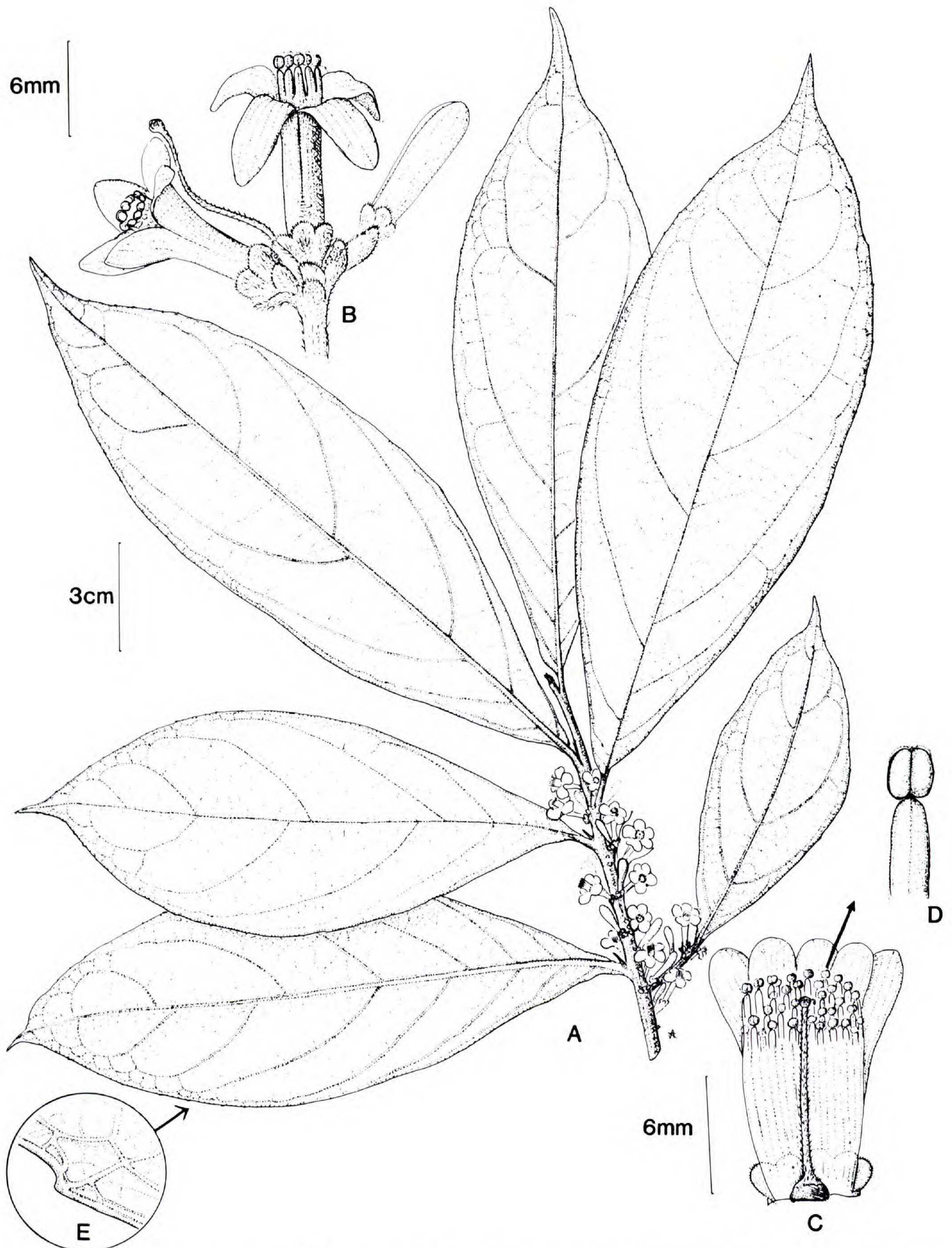


FIGURE 2. *Symplocos panamensis* (McPherson 8447).—A. Flowering branchlet.—B. Inflorescence.—C. Opened flower.—D. Stamen.—E. Detail of leaf margin.

brown, spherical, sessile granulations as well as with intermediates; leaf buds with a similar but denser indument; leaf scars ca. 1 cm long, ca. 1 cm wide. Leaves alternate; blades pal-

mately compound, 5- or 7-foliolate, the leaflets diverging through $\frac{1}{2}$ – $\frac{2}{3}$ of a circle, elliptic, the central and largest leaflet ca. 37 cm long, 12–13 cm wide, the outermost and

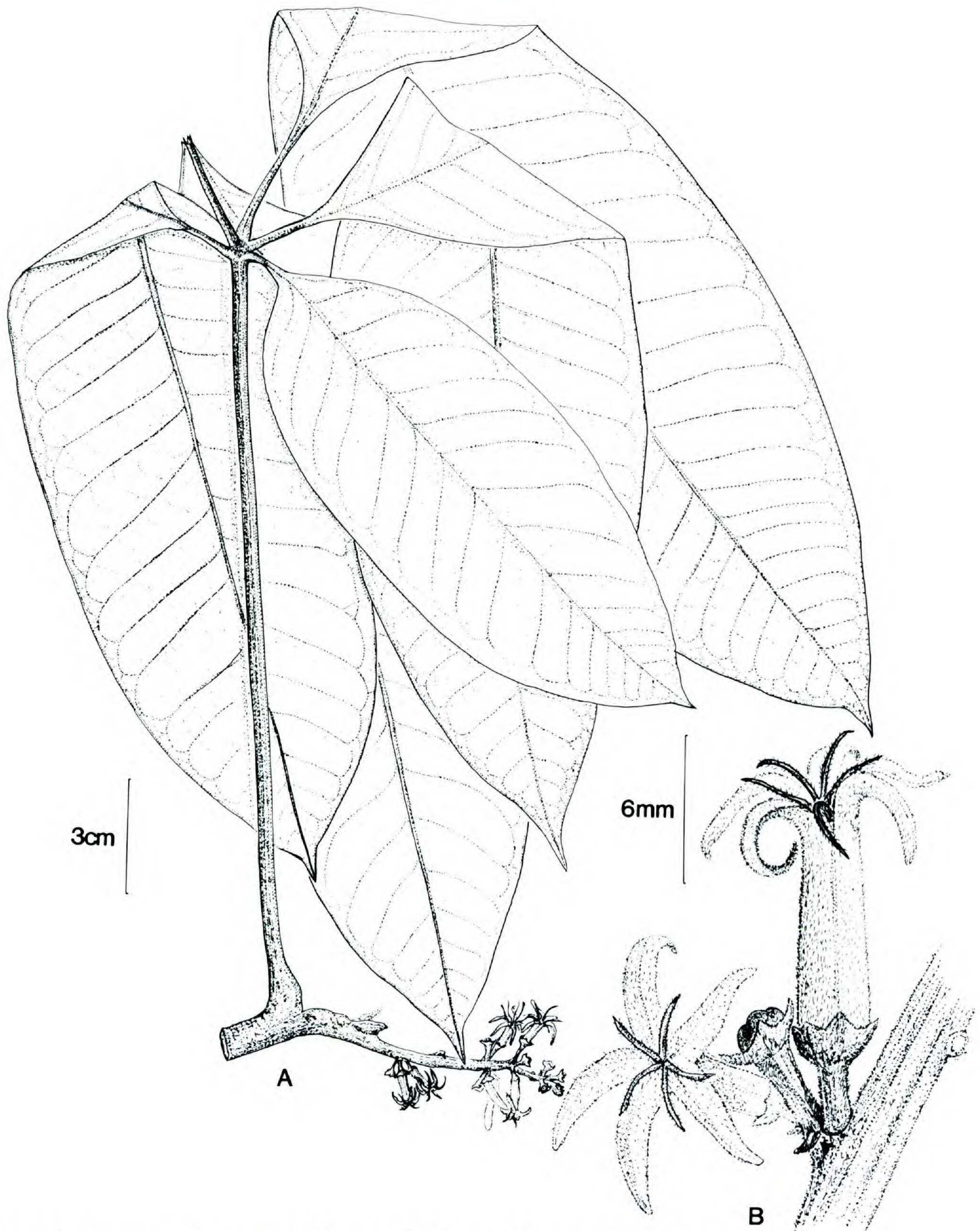


FIGURE 3. *Angostura kunorum* (McPherson 9525).—A. Flowering branchlet.—B. Flowers.

smallest 19–29 cm long, 7–11.5 cm wide, attenuate at base, shortly and sharply acuminate at apex, chartaceous, the margins entire, the surfaces densely punctate, glabrous at least at maturity (except for the midrib, this puberulent like the stem and reddish brown when dry), the secondaries slightly impressed on the adaxial surface, ca. 27–30 in number

on each side of the largest leaflets and ca. 18 on each side of the smallest leaflets; petiolules canaliculate, puberulent like the stem but glabrescent, pulvinate basally, the central one ca. 3.5 cm long, the outermost 0.8–1.5 cm long, all ca. 3 mm diam.; petiole ca. 28–31.5 cm long, ca. 5 mm diam. near mid length, broadly canaliculate, conspicuously lenticellate,

pubescent like the stem but partially glabrescent, pulvinate basally, the apex of the petiole flattened, ca. 1 cm diam. Inflorescence appearing pseudoterminal but perhaps truly terminal, very narrowly paniculate (the lateral dichasia subsessile), the axis of the single known inflorescence 8 cm long (further collections may be significantly longer), ca. 4 mm diam. near mid length, puberulent like the stem; stalks of the lateral dichasia 1–2 mm long; bracts triangular, ca. 2 mm long, 2 mm wide at base, stout, acute, puberulent; pedicels 3–5 mm long, puberulent. Buds straight. Calyx cupular, white, 5–6-lobed, 2 mm long, 4–5 mm diam.; lobes shallow, acute, densely puberulent, densely beset with swollen surficial glands ca. 0.2 mm diam. Corolla of 4–6 petals, white, valvate (or very nearly so) in bud, up to 2 cm long in bud, 1.2–1.5 cm long when open (the recurved portion not included); petals linear, connate by marginal tomentum, separating and recurving at anthesis and eventually $\frac{3}{4}$ to completely unattached to one another, tomentose on both surfaces, the hairs longer and curlier than those of the calyx and unaccompanied by brown granulations, the swollen surficial glands obvious, clear to brownish (at least on drying). Stamens all fertile, 5 or 6; filaments adnate to petal bases, 8–9 mm long, ca. 1.5 mm

wide near base, somewhat flattened, tomentose; anthers 11–13 mm long, ca. 0.8 mm wide, introrse, pubescent with long, straight, \pm erect hairs, abaxially densely beset with swollen surficial glands. Disk cupular, sometimes bearing impressions of the petal bases and hence ridged, 1 mm high, 2–3 mm diam. Ovary 5-carpellate, 1 mm long, glabrous; style ca. 2 mm long, glabrous; stigma ca. 2 mm long, cylindrical, slightly thicker than style, glandular. Fruit unknown.

Angostura kunorum differs from other species of this varied genus in its 5–7 large, broad leaflets, narrowly paniculate inflorescence, straight buds with essentially valvately arranged petals, and entirely fertile androecium.

Among the genera recently added to the known flora of Panama are *Sparattanthelium* of the Hernandiaceae (*S. amazonum* Mart., *McPherson* 9643), *Etaballia* of the Leguminosae (*E.* cf. *guianensis* Benth., *McPherson* 9513), *Metteniusa* of the Icacinaeae (*M. tessmanniana* (Sleumer) Sleumer, *Gentry* 13829A, *McPherson* 7364), and *Plinia* of the Myrtaceae (*P.* spp.; *McPherson* 7341, 9089). These four genera are primarily South American in their distributions.