grayish. **Leaf-blades** coriaceous, elliptic, mostly 6–18 cm long, 3–7.5(–9) cm broad, apically acute to acuminate, basally rounded to shortly tapering and sometimes curling or somewhat conduplicate around the petiole at the junction, marginally entire, glabrous on both surfaces, the venation 3–5-plied, the veins ± depressed above except the midrib elevated for the proximal third to half while elevated beneath through the 3–4 order and forming an indistinct reticulum; petioles mostly 7–15 mm long, 2–3.5 mm diam., somewhat flattened above and there rather broadly and shallowly grooved, glabrous. **Inflorescences** mostly ramiflorous, of several to numerous, sessile fascicles (2–10-flowered) emerging from small, depressed mounds 1–2 mm diam., 1–2 mm long; floral bracts ciliate, scale-like, 0.6–15 mm long; pedicels slender, glabrous, 5–10 mm long, 0.2–0.3 mm diam.; bracteoles 2, ciliate, deltoid, 0.5–0.8 mm long. **Flowers** 5-merous; calyx ca. 3–4 mm long, clearly articulate with the pedicels, the hypanthium cylindric-obconic, ca. 1.5–2.2 mm long, 1.6–2 mm diam., glabrous, the lobes broadly based, minute, varying from barely detectable to perhaps as much as 0.2–0.4 mm long, glabrous; corolla cylindric to more typically gradually funnelform, glabrous both externally and internally, greenish-white, 5–9 mm long, flaring to ca. 5–6 mm diam. from a 2–2.5 mm diam. base, the lobes narrowly triangular to deltoid, acute, ca. 2.5 mm long; stamens 10, included, 7–8 mm long, the filaments 1–2.5 mm long, united in the basal 0.5 mm, glabrous, flattened, the anthers attached medially, lacking spurs, 6–7 mm long, the thecae very finely pebbled, ca. 1.4–2.2 mm long, basally incurved and apiculate, the tubules ca. 3–4.8 mm long, dehiscing by truncate to slightly flaring, terminal pores; styles slightly exserted, glabrous. **Berry** immature, 3–4 mm diam., glabrous.

**Distribution.** Presently known only from five collections; three made near the Fabrega Dam site at Fortuna (Chiriqui Province), one from Cerro Colorado (Bocas del Toro Province), Panama in wet forest, at 1150–1500 m, and one from Cerro Arizona near Santa Fe, Veraguas Province. Flowering: Jan.; immature fruits: Apr.

Additional collections examined: **PANAMA, Bocas del Toro:** region of Cerro Colorado 7 mi from Chami Camp, ca. 8°35′N, 82°45′W, ca. 1500 m, 12 Apr 1986, McPherson 8825 (MO). **Chiriqui:** Fortuna Dam region, along trail to hydrological station on Rio Hornito, below forestry house on hwy, 8°45′N, 82°15′W, 1150–1200 m, 20 Jan 1989, McPherson 13612 (DUKE, MO); Fortuna dam site, along stream on white sandy soil, 1200 m, 7 Feb 1985, van der Werff & van Hardeveld 6609 (MO, photo NY neg. 13043). **Veraguas:** in forest below summit of Cerro Arizona, above Santa Fe, elev. 4400 ft, Hammel & Kress 8568 (DUKE).

**Vaccinium furfuraceum** Wilbur & Luteyn, sp. nov. (Fig. 2). **Type**: COSTA RICA, LIMÓN: Cantón de Talamancá, finca de exploración minera entre Rio Sukul y Rio Carbrí, Muragushi, 9°22′50″N, 82°56′50″W, 700 m, 14 Jul 1989 (FI), Herrera 3286 (HOLOTYPE INB; ISOTYPES DUKE, FI, NY, and 4 duplicates are distributed). Frutex epiphyticus, ramuli teretes pubescentes vel pilosi. Petiolii 2–3(–4) mm longi, pilosi. Lamina ovata vel ovato-elliptica, (2.5–)4–6 × (1.2–)1.8–2.5 cm, basi rotundata, apice acuminata. Inflorescentiae axillares, racemosae vel corymboseae, 3–10(–12) floreae. Calyx pedicellis articulatus. Hypanthium squamatum obconicum, 1.5 × 5–6 mm. Corolla extrus squamata; tubus 8–12 mm longus.
Fig. 2. Vaccinium furfuraceum. Isotype (Herrera 3286, DUKE)
Much-branched, epiphytic, lianoid shrubs with branchlets brownish, ± terete, finely ridged and grooved, densely spreading hirsutulous, 1.5–4 mm diam. Leaf-blades somewhat coriaceous, ovate to ovate-elliptic, (2.5–)4–6 cm long, (1.2–)1.8–2.5 cm broad, basally rounded, apically acuminate and ± tapering abruptly to the narrowly rounded tip, marginally entire, glabrous above or nearly so except moderately pilose along the principal veins, moderately to densely spreading pilose beneath along the principal, secondary and even tertiary veins with hyaline trichomes up to 0.7 mm long and also densely set especially when young with short, thick, glandular, scale-like trichomes ca. 0.1–0.2 mm long on both the veins and the surface, the venation weakly 3-plinerved, the secondary nerves joining together in a series of prominent arches, the lamina ± bullate, the midrib and secondary veins impressed above and elevated beneath and the tertiary veins slightly elevated on both surfaces; petioles 2–3(–4) mm long, densely spreading pilose. Inflorescences axillary, congregated distally, sometimes appearing terminal, racemes but with the rachis often contracted and the flowers hence appearing somewhat corymbose, 3–10(–12) flowered, 2.5–5 cm long overall; racis 2–4(–8) mm long, densely glandular-strigillose with thickened trichomes 0.1–0.3 mm long and sparingly to moderately pilosulous with hyaline spreading trichomes, 0.3–0.6 mm long; floral bracts narrowly lanceolate to linear-lanceolate, marginally glandular ciliate, 2.5–2.6 mm long, pedicels (0.6–)1–2(–2.4) cm long, moderately to densely glandularly strigillose and also sparingly pilosulous with hyaline trichomes; bracteoles 2, appressed, linear-lanceolate, glandular-ciliate, located in about proximal third, ca. 2.8 mm long. Flowers 5-merous; calyx 3–4.5 mm long, strongly articulate with pedicels, the hypanthium shallowly obovate, ca. 1.5 mm long, ca. 5–6 mm diam. distally, prominently flaring from the approximately 3 mm diam. basal portion, densely and scurfily glandular-squamate throughout, the limb ca. 3 mm long including the lobes, the lobes deltoid-triangular to broadly oblongish with an abrupt distal tip, ca. 1–1.2 mm long, ca. 2.3 mm broad at base; corolla broadly cylindrical, relatively thin in texture, densely scurfily glandular-squamate externally, glabrous internally, the tube 8–12 mm long, ca. 8 mm in diam. distally, the lobes triangular, 2.5–3 mm long, ca. 3 mm broad basally, acute; stamens 10, included, ca. 7–9.5 mm long, the filaments conspicuously hyaline ciliate, flattened, 2–3 mm long, the anthers lacking spurs, ca. 7 mm long, the thecae granular, 2–2.2 mm long, basally incurved, the tubules ca. 3–5 mm long, dehiscing by latrorse, elongate clefts ca. 1–2 mm long, styles about as long as the corolla, straight, glabrous. Berry not seen.

Distribution.—Known only from the type collection made in Costa Rica in the Talamanca foothills of Limón Province at ca. 700 m.

Vaccinium luteynii Wilbur, sp. nov. (Fig. 3). Type: PANAMA. BOCAS DEL TORO. Fortuna Dam; Chiriqui Grande Road, 2–3 km N of the Continental Divide, ca. 8°48'N, 82°12'W, 700–