and cloud forest on the Pacific slope near the Continental Divide; 1,100–1,700 m elevation.

Specimens Examined: PANAMA. Chiriqui: mountains above Fortuna Dam Camp, *Folsom 5394A* (MO); *Hammel 2118* (BH, MO); *Hodel et al. 1209* (holotype BH; isotypes MO, PMA), *1210* (BH, PMA); north of Fortuna Dam reservoir, *Churchill 5901, 6122* (MO).

The specific epithet is from the Latin *recurvatus*, meaning recurved, and is used here in reference to the strongly and conspicuously recurved inflorescences (Fig. 6), a diagnostic feature of the species.

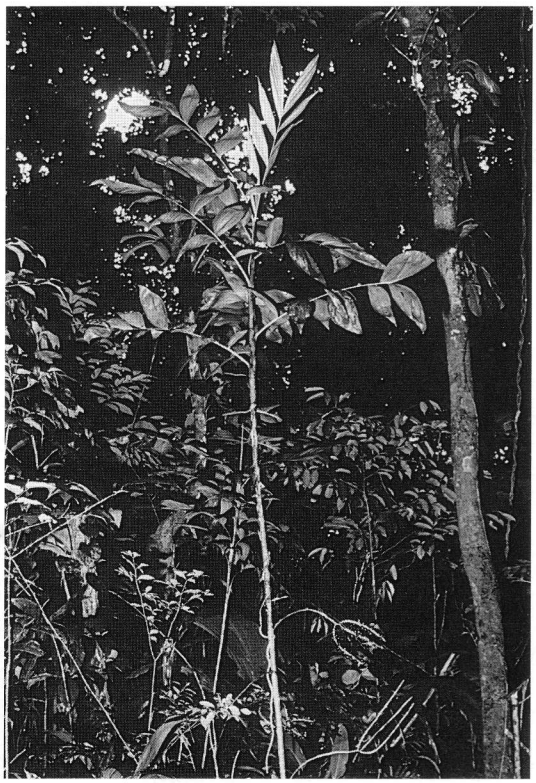
Chamaedorea recurvata is known from only a few collections, all from very wet forest in the vicinity of Fortuna Dam in western Panama. *Chamaedorea recurvata* is closest to *C. dammeriana*, but the latter differs in its straight rachillae, remotely placed pistillate flowers, more numerous leaves, and staminate flowers with a less prominent calyx and broader petals. When only fruiting material is at hand, *C. recurvata* could be confused with some members of *Chamaedorea* subgenus *Stephanostachys* with few-branched or spicate inflorescences that tend to curve, such as *C. allenii* from Panama and *C. crucensis* from adjacent Costa Rica. However, these two differ in their truly contiguous pistillate flowers with much more prominent calyces. Also, staminate material of the latter two species differs in having straight but drooping or pendulous rachillae and contiguous flowers with very prominent calyces.

Chamaedorea recurvata would key out next to *C. microphylla* or *C. parvisecta* and *C. whitelockiana* in the key to subgenus *Chamaedoropsis* in Hodel (1992*a*). However, the recurved inflorescences readily distinguish it from the latter two species.

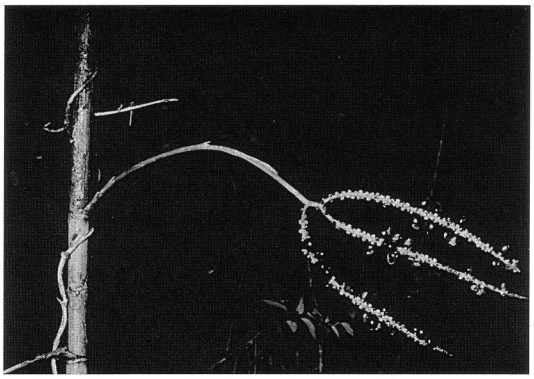
Chamaedorea subjectifolia Hodel **sp. nov.** (Figs. 7–8).

Subgeneris *Chamaedoropsi* Oerst. inflorescentiis masculis solitariis, floribus masculis solitariis petalis patentibus apicaliter pertinens. *C. correae* Hodel & Uhl et *C. guntherianae* Hodel & Uhl affinis sed habitu erecto multo majore multum, foliis majoribus, pinnis et rachillis pluribus differt; *C. dammerianae* Burret affinis sed inflorescentiis valde infrafoliaribus, floribus femineis persistentibus differt. Typus: Panama, Panama, *Hodel et al. 1238* (holotypus BH; isotypi MO, PMA).

Solitary, to 3.5 m tall (Fig. 7), erect; stem 1–2.5 cm diam., green, ringed, internodes 10–15 cm long. Leaves 5–8, spreading, pinnate, ± thick, slightly coriaceous; sheaths to 17 cm long, tubular, briefly and obliquely open apically, longitudinally striate-nerved; petioles to 8 cm long, 3–4 mm diam., green and ± flattened adaxially, pale green and rounded abaxially; rachis to 32 cm long, green and angled adaxially, pale green and rounded abaxially; pinnae 4–5 per side, lower ones to 14.5 × 3 cm, middle ones to 21.5 × 5 cm, apical pair to 20.5 × 8 cm, glossy green adaxially, paler abaxially, lanceolate, sigmoid, acuminate, contracted basally, ± cupped downward, basal and middle pinnae with slender raised conspicuous midrib adaxially, 2–5 primary nerves on either side of this, 1–2 secondaries between each primary and/or midrib, tertiaries numerous, faint, apical pair of pinnae 3–5 nerved, all nerves paler, raised and more conspicuous abaxially. Inflorescences 1–3 per plant, infrafoliar, held well below the leaves on bare stem or stem with old persistent disintegrating leaf sheaths (Fig. 7); peduncles to 20 cm long, 7 mm wide and ± flattened at base, 3–4 mm diam. at apex, straight, erect, green in flower, orange where exposed and nodding in fruit; bracts 5, prophyll to 3 cm long, 2nd bract to 4 cm, 3rd to 7.5 cm, 4th and 5th to 11 cm, 5th about equalling peduncle, all tubular, thin-papery, drying brown and finely longitudinally nerved, 1st–3rd bifid, acute, 4th and 5th obliquely long-open, acute-acuminate; rachis 1–2 cm long or lacking. Staminate with 3–6 rachillae, to 18 cm long, 1 mm diam., pendulous, greenish, very slightly undulate when dry. Staminate flowers yellow-green, in dense spirals, 0.5–1 mm distant, superficial, leaving elliptic scars 1 mm long, flowers 2 × 2 mm, obovoid; calyx low-cupular, 0.4 × 1–1.5 mm, moderately lobed, sepals connate in basal half, acute apically; petals 2 × 1–1.25 mm, ovate, acute, distinct nearly to base; stamens 0.8 mm high, half as tall as and forming a rather tight ring around pistillode, filaments 0.3 mm long, 0.25 mm wide, anthers 0.3 mm long, oblong, bilobed, dorsifixed near base; pistillode 1.6 mm high, truncate apically, swollen basally, slightly longitudinally fluted. Pistillate with 2–5 rachillae (Fig. 8), to 15 cm long, 1.5–2 mm diam., spreading to erect, parallel, stiff, orange in fruit. Pistillate flowers in ± dense spirals, 1–2.5 mm distant, superficial or when removed leaving slightly raised elliptic scars 1.25 mm long, unpollinated flowers persistent on rachillae through fruiting stage (Fig. 8), flowers 2 × 2.5 mm, globular; calyx 0.8 × 2.5 mm, cuplike, shallowly lobed, sepals connate in basal ⅔, broadly rounded to straight apically,



7. Fruiting plant of *Chamaedorea subjectifolia, Hodel et al. 1238* (holotype), El Llano-Carti Road, Panama. Note the inflorescences held well below the leafy crown.



8. Infructescence of *Chamaedorea subjectifolia, Hodel et al. 1238* (holotype). Note unpollinated pistillate flowers persisting on rachillae with mature fruits.

margins thinner; petals 2 × 2 mm, broadly rounded-triangular, imbricate nearly to apex, briefly acute; pistil 2 × 2 mm, globose, stigma lobes short, recurved, acute. Fruits 9 × 6 mm, black; seeds 7 × 5 mm brown. Eophyll bifid.

Distribution: PANAMA. Wet lowland to premontane forests and cloud forest; 50–1,000 m elevation.

Specimens Examined: PANAMA. Colon: trail from Alto Pacora to Cerro Brewster, *de Nevers et al. 6228, 6241* (CAS). Panama: Cerro Jefe, *Dressler 4889* (BH), *Gentry 4880* (MO); El Llano-Carti Road, *Hodel et al. 1238* (holotype BH; isotypes HNT, PMA), *Knapp 1377* (CAS), *Mori & Kallunki 2886* (MO), *Mori et al. 4559* (MO). San Blas: near confluence of Rio Cangandi and Rio Titamibe, *de Nevers et al. 4693* (MO); between Cangandi and Rio Nergala, *de Nevers et al. 6518* (MO); El Llano-Carti Road, *de Nevers et al. 5040*; trail along Continental Divide, *McDonagh et al. 282* (BM).

The epithet of the new species is from the Latin *subjectus*, meaning placed below, and *folia*, meaning leaves, and refers to its inflorescences held conspicuously below the leaves. Label data of *de Nevers et al. 6518* states the vernacular name used by Kuna Indians for *Chamaedorea subjectifolia* is *bor*.

Chamaedorea subjectifolia appears restricted to the central part of Panama east of the Panama Canal. There it infrequently occurs in wet lowland, montane, and cloud forests on the Atlantic slope up to and just over the relatively low Continental Divide.

In flower structure, *Chamaedorea subjectifolia* is closest to *C. guntheriana* and *C. correae* but these two differ in their much smaller habit and size of their various organs and their commonly bifid leaves (or if pinnate, with many fewer pinnae). In fact, seedlings of *C. subjectifolia* are nearly identical to those of *C. guntheriana*. In habit, *C. subjectifolia* could be confused with *C. dammeriana*, especially where their ranges briefly overlap in central Panama. However, *C. dammeriana* differs in its interfoliar inflorescences and more remotely placed pistillate flowers which fall away if unpollinated. In the key to subgenus *Chamaedoropsis* (Hodel 1992*a*, p. 120), *C. subjectifolia* would key out next to *C. dammeriana*.

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