

Bot. Gart. Berlin 12: 42, 1934. Type: Colombia, *Dryander 13* (B, destroyed). *Edanthe veraepacis* O. F. Cook & C. B. Doyle, Nat. Hort. Mag. 18: 174, figs. 1-9, 1939, name of no botanical standing.

Discovered by Liebmann at Matlaluca, Veracruz, México and described and named by Martius (1849), *Chamaedorea tepejilote* is widely cultivated today, appearing in gardens and collections in California, Hawaii, Florida, Australia, Europe, and elsewhere. In Europe, it has been cultivated since prior to the middle of the 19th Century where it was introduced by several collectors including Liebmann, Linden, and Oersted.

*Chamaedorea tepejilote* is an extremely variable species throughout its very wide range. The most widely distributed species of *Chamaedorea*, it occurs in moist or wet forests on a variety of substrates from México to northern Colombia. Separate taxa have been proposed based principally on size, number of parts, and nervature of pinnae. According to Standley and Steyermark (1958), it is difficult to find constant distinguishing features and, essentially, differences are of size, not of character. They placed *Chamaedorea wendlandiana* and *C. anomospadix* in synonymy with *C. tepejilote*. I have examined Liebmann's type of *C. tepejilote* from Copenhagen and the type of *C. exorrhiza* from Paris. I can see no outstanding differences and thus hold these to be the same. Unfortunately, the types of Burret's *C. sphaerocarpa* and *C. columbica* were destroyed at Berlin. However, from Burret's descriptions and discussions, these do not appear to be significantly different from *C. tepejilote*.

***Chamaedorea zamorae* D. R. Hodel  
sp. nov.** (Figs. 17-21).

*C. crucense* et *C. allenii* affinis sed fructibus rubris, segmentis 1-6 utrinsecus,

apicalibus quam ceteris segmentis combinatus latioribus differt; a *C. crucense* antheris non exsertis differt; a *C. allenii* floribus masculinis albidis differt. Typus: Cult., D. R. Hodel & H. Bornhorst 830 (holotype, BH).

Stem solitary, erect, 2-3 m tall although flowering when acaulescent or nearly so, 2-2.5 cm diam., green, ringed, internodes 3-8 cm long (Fig. 17). Leaves 3-5, erect-spreading, pinnate or simple and bifid, shining green; sheath 15-20 cm long, obliquely open at the apex and there light green or nearly white and lightly striate-nerved; petiole 10-50 cm long, green and grooved adaxially, rounded abaxially with a pale band extending from the rachis onto the sheath; the rachis 40-60 cm long, green and angled adaxially, rounded and pale-banded abaxially; pinnae 3-6 on each side of the rachis, opposite or subopposite, all except the apical pair long-lanceolate, 20-30 × 2-3 cm, weakly sigmoid, falcately long-acuminate and drooping slightly at the tips, slightly contracted at the base, a midrib and 4-5 prominent nerves on each side of this adaxially, the apical pair of pinnae very broad, as broad or broader than the others combined, 12-18 cm wide and with more nerves, exterior margin coarsely toothed toward the apex.

Inflorescences interfoliar but often infrafoliar in fruit, erect; peduncles 15-30 cm long, erect or sometimes curved when laden with fruits, pale or greenish in flower, red-orange in fruit; bracts 5-6, green, thin-papery, turning brown in fruit, the uppermost opening long-oblique at the apex and exceeding the peduncle; staminate inflorescence furcate (Fig. 18) with a very short rachis 1-2 cm long or perhaps spicate, rachillae (or rachis if spicate) pendulous, 20-30 cm long, 1 cm wide with flowers at anthesis; Pistillate inflorescence spicate (Fig. 19); rachis or flower-bearing portion 10-15 cm long, stiff and erect in bud and in flower, becoming downward-pointing and curved in fruit.

Staminate flowers densely packed and

contiguous in 8 rows, brownish-white; calyx prominent, sepals joined shortly at the base,  $\pm$  rectangular,  $2 \times 1.5$  mm, the tips broad, nearly truncate, rounded, thickened below across the tip, about one-half the height of the petals; corolla with the petals valvate,  $4 \times 2$  mm,  $\pm$  fleshy, thickened along the margins; stamens with filaments 2.5 mm long, longer than the pistillode, terete, anthers  $1 \times 0.5$  mm, medifixed and  $\pm$  versatile, at least at right angles to the filament, just inside the open petals and not protruding; pistillode columnar,  $1.5 \times 0.5$  mm, the tips slightly expanded and with 3 rounded lobes, one-half as high as the stamens. Pistillate flowers densely packed and contiguous in irregular rows,  $3.5 \times 2.5$ – $3.5$  mm, yellow at anthesis; calyx prominent, sepals joined in a hyaline cupule, 2 mm high, the tips widely truncate,  $2 \times 0.5$  mm, thicker than the cupule; corolla with the petals distinct, broadly imbricate, hooded with a short tip in the center of the "hood,"  $3 \times 2.5$  mm; staminodes lacking; pistil subglobose,  $2.5 \times 2.25$  mm, stigmas closed but  $\pm$  triangular. Fruits green, maturing red and perhaps aging black, densely packed (Fig. 21), contiguous, angled by mutual pressure, conical-globose,  $10$ – $15 \times 10$ – $12$  mm.

*Distribution:* COSTA RICA. Guanacaste. Alajuela. Dense, wet forest on the Atlantic slope, 800 m elevation or, perhaps, higher. Probably endemic.

*Specimens Examined:* COSTA RICA. Alajuela: near San Miguel along the Río Sarapiquí, *D. R. & M. A. Hodel 719* (BH, CR) (Fig. 20). CULTIVATED. United States. Hawaii: Honolulu, Wahiawa Botanic Garden of the Honolulu Botanic Gardens, *HBG 66.915*, grown from seeds collected in 1966 near Laguna de Arenal, Guanacaste.



21. Inflorescence of *Chamaedorea zamorae* showing densely packed fruits.

caste, Costa Rica, *D. R. Hodel & H. Bornhorst 830* (holotype, BH); *D. R. Hodel & H. Bornhorst 830B* (BH).

The epithet honors Costa Rican botanist Nelson Zamora, collector of exemplary specimens of many kinds of plants from his country.

The type of *C. zamorae* is from cultivated plants grown at Wahiawa Botanic Garden of the Honolulu Botanic Gardens in Hawaii. They were grown from seeds collected in 1966 by Harold Koopowitz near Laguna de Arenal in Costa Rica. By 1974 and up until at least 1978, they were fruiting with simple, bifid leaves and were nearly acaulescent. In 1987, they were flowering and fruiting, had erect stems about 2 m tall, and, for the most part, had leaves with 3–5 narrow basal pinnae on each side of the rachis and a pair of very broadly lobed apical pinnae.

*Chamaedorea zamorae* is similar to *C. crucensis* and *C. allenii*. In fruit, it may be difficult to distinguish between *C. deckeriana* and simple-leaved forms of *C. zamorae* and *C. allenii*. Some differences between these four species are summarized in the table below.

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17. The type specimen of *Chamaedorea zamorae*, *D. R. Hodel & H. Bornhorst 830*, was taken from the plant on the right cultivated in Hawaii. 18. Furcate staminate inflorescence of *Chamaedorea zamorae*. 19. Spicate pistillate inflorescence of *Chamaedorea zamorae*. 20. *Chamaedorea zamorae*, *D. R. & M. A. Hodel 719*, in dense, wet forest along the Río Sarapiquí near San Miguel, Costa Rica.

	<i>Chamaedorea zamorae</i>	<i>Chamaedorea allenii</i>	<i>Chamaedorea crucensis</i>	<i>Chamaedorea deckeriana</i>
pinnae/side	1-6; rarely simple, bifid	7-9; rarely simple, bifid	9-11	simple, bifid
sheath margin	whitish	whitish	whitish	green
inflor.	solitary	solitary	solitary	multiple
flowers	white	yellow	white	green
fruit	red > black	black	red > black	red > black

### Acknowledgments

I am grateful to several individuals and institutions in assisting me with this study. Natalie W. Uhl assisted in developing floral descriptions of several of the taxa included in this paper. Richard W. Palmer, Pauleen Sullivan, Bill Gunther, and the International Palm Society and its Seed Bank encouraged and supported my work in *Chamaedorea*. Michael H. Grayum and Gregory de Nevers offered valuable suggestions and ideas. Paul Weissich and Heidi Bornhorst of Honolulu Botanic Gardens in Hawaii facilitated my work at that institution. In Costa Rica, the Organization for Tropical Studies and Luis Diego Gomez at JBRCW at San Vito helped make my work there pleasant and rewarding. Frank Ketchum of Huntington Beach, California permitted me to collect material in his garden. The keepers of the herbaria at Copenhagen, Missouri Botanical Garden, and Paris lent material. All deserve my sincere thanks.

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