



4. *Chamaedorea whitelockiana*, D. R. Hodel 853, in the garden of L. M. Whitelock, Los Angeles, California.

of the International Palm Society. Recently, Lyon Arboretum has begun to distribute seeds and seedlings of *C. vistae* under the number BH61-1178.

Chamaedorea whitelockiana D. R. Hodel & N. W. Uhl, sp. nov. (Figs. 4,5).

C. digitatae Standl. & Steyerl. et *C. pachecoanae* Standl. & Steyerl. et *C. parvisectae* Burret affinis sed segmentorum apicibus pendulis differt; a *C. digitata* segmentis pluribus, inflorescentiae rachidibus longioribus, rachillis masculinis pluribus differt; a *C. pachecoana* habitu non acaulescenti, vaginis magis clausis tubulosis, inflorescentiae rachidibus multo longioribus differt; a *C. parvisecta* caudicibus crassioribus, floribus masculinis grandioribus, rachillis femineis tenuibus apicibus spiniformibus differt. Typus: México, D. R. & R. J. Hodel 935 (holotypus BH; isotypus MEXU).

Stem solitary, erect, to 2 m tall, 1-1.3

cm diam., green, ringed, internodes to 10 cm long, often covered with old persistent leaf bases; plants occasionally flowering with a much reduced inflorescence when very small and appearing acaulescent but actually having at this time a short subterranean caudex to 20 cm long, overall height at this stage including leaves less than 30 cm. Leaves 5-7, spreading, pinnate (Fig. 4); sheath to 17 cm long, tubular, tightly clasping, obliquely open apically and there the margin brownish and ragged with a brown ligule 5-8 mm long on either side of the petiole, below this the margin whitish and green, longitudinally striate-nerved; petiole 10-20 cm long, green and finely grooved adaxially, rounded and with a pale band abaxially extending from the rachis onto the sheath; rachis to 35 cm long, green and angled adaxially, pale and rounded abaxially; the blade to 40 x 15 cm; pinnae 7-9(13) on each side of the rachis, opposite or subopposite, lanceolate, falcately long-acuminate, thin-papery, the apical one-third of each pinna drooping and curling down and under, con-



5. Staminate inflorescence of *Chamaedorea whitelockiana*, D. R. Hodel 852, emerges from the leaf axils. Note the apices of the pinnae curving downward and under.

tracted at the base and there a hard knob or callus at the point of attachment, slightly iridescent gray-green adaxially, paler abaxially, lower middle ones the longest, to 15×3 cm, a prominent midrib and $2 \pm$ inconspicuous secondary nerves on each side of this or the secondaries lacking, tertiary nerves faint and inconspicuous, pinnae progressively smaller toward the apex of the rachis, 2 basal pinnae smaller, apical pair the shortest of all with 2 prominent primary nerves; or when young and acaulescent, leaves finely divided, sheath 3–5 cm long, very open, completely sheathing only near the base; petiole 5–8 cm long; blade 20×12 cm; pinnae linear-lanceolate, straight, slightly falcate, 7×0.8 cm, only a midrib prominent, secondary and tertiary nerves inconspicuous.

Inflorescences interfoliar but often

infrafoliar in fruit, erect. Staminate inflorescence (Fig. 5) with peduncle 25–30 cm long, 7–9 mm wide at the base and there flattened, 3–4 mm wide at the apex and there rounded, erect, greenish or pale at anthesis; bracts 7–8, tightly sheathing, obliquely open apically, longitudinally striate-nerved, drying brownish and papery at anthesis, acute-acuminate, to 3.5 cm long, 2nd bract to 6 cm long, 3rd to 9 cm long, 4th–7th to 10 cm long, 8th to 4 cm long; rachis to 5 cm long, slightly to strongly curved, lime-green at anthesis; rachillae 12–15, to 10–12 cm long, simple, erect, \pm stiff, 1.5–2 mm diam., lime-green at anthesis. Pistillate inflorescence with peduncle to 40 cm long, erect, slender, 5 mm wide at the base and there flattened, 2.5 mm diam. at the apex and rounded, pale or greenish at anthesis, orange in fruit where exposed; bracts similar to those of the staminate; rachis 1–3 cm long, greenish at anthesis, orange in fruit; rachillae 6–8, to 10 cm long, erect, stiffish, slender, 2 mm diam., longitudinally ridged or angled or finely grooved, slightly spinose-tipped, greenish at anthesis, orange in fruit.

Staminate flowers in rather dense spirals, slightly immersed in elliptic depressions, 2–3 mm apart, depressed-globose, 3×4 mm; calyx low, 0.5×2.5 mm, pale yellow-green, shallowly 3-lobed; corolla 4 mm wide, bright yellow, petals valvate, free nearly to the base, broadly acute, incurved but not connate at the tips, $4-5 \times 3$ mm; stamens leaning away from and not exceeding the pistillode, filaments pale, 1–1.5 mm long, anthers 1–1.5 mm long; pistillode broadly columnar, lime-green, 2–2.5 mm high. Pistillate flowers arranged in lax spirals, slightly immersed in elliptic depressions, 4–5 mm apart, globose, 3×3 mm; calyx coroniform, $1-1.5 \times 2-2.5$ mm, prominently 3-lobed, lobes broadly rounded, green; petals imbricate basally and spreading apically, $3 \times 2-2.5$ mm, acute, glossy yellow; staminodes lacking; pistil globose, green, 2×2 mm, flattened

apically, styles lacking or reduced, stigmas pointed, short, dark green or brownish. Fruits black, globose, 7–8 mm diam.

Distribution: MÉXICO. Oaxaca: moist pine-oak forest on steep and rocky substrate on the Pacific slope; 1,400–1,900 m elev., probably endemic.

Specimens Examined: MÉXICO. Oaxaca: beyond San Gabriel Mixtepec along road from Puerto Escondido to Oaxaca, *D. R. & R. J. Hodel* 935 (holotype BH; isotype MEXU). CULTIVATION. United States. California: Los Angeles, in the garden of L. M. Whitelock, *D. R. Hodel* 687, 852, 853 (BH), all grown from seeds originally collected at the type locality.

Chamaedorea whitelockiana is named for Loran M. Whitelock of Los Angeles, California who, in 1981, collected the species in Oaxaca, México. Whitelock returned to Los Angeles with seeds and plants and established them in his garden where they were first brought to our attention.

A dainty and attractive plant, *C. whitelockiana* is close to *C. digitata*, *C. pachecoana*, and *C. parvisecta*, all from Guatemala. It can be distinguished from all in the drooping, downward-recurving tips of the pinnae. Probably closest to *C. parvisecta*, *C. whitelockiana* can also be distinguished from it by the much stouter stem; inflorescences interfoliar and not breaking through the sheaths; distinctly larger staminate flowers with broadly ovate petals; and much more slender, spinose-tipped, pistillate rachillae with laxly dis-

posed flowers. It also differs from *C. digitata* in the greater number of pinnae, the much longer rachis of the inflorescence, and the staminate with many more rachillae. From *C. pachecoana*, it can be distinguished by its trunked habit, more tubular leaf sheaths, and the inflorescences with many more rachillae and a much longer rachis.

Chamaedorea whitelockiana exhibits a growth phase best described as juvenile, with plants characterized by their virtually acaulescent habit and finely divided leaves with numerous, narrow pinnae not unlike that of *C. elegans* Mart. Plants are not truly acaulescent during this period but actually possess a short, curving, rooting subterranean stem with highly congested nodes. Although remaining acaulescent for several years, they begin to flower and fruit during this phase with much reduced inflorescences until later forming a visible stem with normal-sized inflorescences and broader pinnae. This juvenile phase may allow the plants to become anchored securely in their substrate before developing an erect, above-ground stem.

Acknowledgments

We thank Richard W. Palmer, Pauleen Sullivan, Bill Gunther, and the International Palm Society for supporting and encouraging Hodel's work on *Chamaedorea* and John Dransfield who reviewed and offered helpful suggestions on the manuscript.

Errata

In *Principes* October 1989, p. 194. Lynn Muir's name was misspelled as Lynn "Mier"; this error was continued in the separate ballot for voting for Directors 1990–1994. The editors apologize.