

(BH,CR).

The specific epithet is from the Latin *incrustatus*, meaning encrusted, and is used here in reference to the fruiting inflorescence with its prominently rough, crusty rachis and rachillae, a diagnostic character for the species and a feature unique in the genus. Indeed, this distinctive and diagnostic character is as peculiar for *Chamaedorea incrustata* as the unusual leaf blade is for *C. piscifolia*. This rough, crusty, and crinkled appearance and feel is the result of incredible and spectacular encrustations more or less arranged along the longitudinal ridges of the rachis and rachillae. These outgrowths are 1-1.5 mm high, crusty, thin, long, irregularly shaped, and sometimes wavy, and have a resemblance to some types of the plate- and fanlike tropical corals. They bear on their margins and apices concrescent, stellate clusters of minute, slender, white, simple trichomes, also a diagnostic character for the species and a feature unique in the genus. While several other species in the genus (*C. foveata* Hodel, *C. woodsoniana* L. H. Bailey, and *C. pittieri* L. H. Bailey) have petioles or rachillae sometimes only slightly rough to the touch, none have such conspicuous, crusty outgrowths, large and prominent enough to be visible even to the naked eye.

In addition to the conspicuously crusty, trichome-bearing rachis and rachillae, *Chamaedorea incrustata* has two other characters that, while not unique in the genus, are nevertheless unusual. These unusual characters are the strongly cupped, boatlike pinnae and inflorescences branched to two orders. *C. incrustata* is probably closest to *C. pittieri*, with which it has similar foliage; however, the latter is much smaller in habit, leaves, and stem, and has inflorescences branched to only one order and with less than one-fourth the number of rachillae.

Although flowers were not found, the solitary inflorescences and fruiting perianth not prominently nerved when dry suggest *Chamaedorea incrustata* is best placed in subgenus *Chamaedoropsis*.

Known with certainty from only two areas about 20 kilometers apart in Costa Rica, at least one of which is in proximity to human activity, it probably is prudent tentatively to designate *Chamaedorea incrustata* as endangered; it is certainly rare and, at the least, vulnerable.

***Chamaedorea rosibeliae* Hodel, G. Herrera & Casc. sp. nov.** Fig. 10.

Subgeneris *Chamaedoropsi* inflorescentiis masculis solitariis, floribus masculis solitariis petalis patentibus apicaliter pertinens. Species insignis petiolo, rhachidi et pinnis abaxialiter basilariter valde dense nodulis, a ceteris speciebus bene distincta. Typus: Costa Rica, Limón, Cantón de Talamanca, Alto Urén, Cerro Laübeta, Herrera 3386 (holotypus INB)

Solitary, creeping, decumbent, understory palm. Stem prostrate, long-creeping, 6 mm diam., internodes 5-6 cm long, rooting at nodes. Leaves 6; sheath 11.5 cm long, tubular; petiole (excluding sheath) 3 cm long; rachis 13.5 cm long, slender, attenuate distally; abaxial surface of rachis and petiole with conspicuous, dense nodules extending onto abaxial and proximal portion of pinna nerves; 4 pinnae per side, largest to 10 x 3.5 cm, +/- thin-papery, strongly sigmoid, long-acuminate, cupped downward, 2-3 primary nerves on each side of the midrib, secondaries and tertiaries variable and faint, all nerves light-colored adaxially and abaxially. Staminate inflorescence 17 cm long, spicate; peduncle 4 cm long; bearing 4 bracts (only tattered and shredded fragments remaining), prophyll fragment 4 mm long, 2nd bract 6 mm long, 3rd 9 mm long, 4th 5.5 mm long and exceeding rachis; rachis 13 mm long. Staminate flowers conspicuously maturing acropetally along rachis, green in bud, yellowish at anthesis, lower 4 cm of rachis already devoid of flowers and leaving elliptic, raised scars 0.75 mm long; flowers in 3 densely spiraling rows, flowers 0.75 mm distant within a row, appearing contiguous at anthesis, rows 1.25 mm as they spiral around rachis vertically, petals of adjacent flowers touching; flowers 2.25 x 2.5 mm, calyx 1 x 2.5 mm, cupular, whitish, thin, +/- transparent, sepals connate in basal 1/2-2/3, broadly rounded-acute apically; petals 2 x 2 mm, deltoid or triangular, valvate, spreading, free nearly to base, acute, +/- transparent, faintly nerved; stamens 1 mm long, filaments 0.5 mm long, anthers 0.75 mm long, bilobed, elliptic, dorsifixed above base, opening longitudinally and laterally; pistillode 1.5 mm long, shorter than petals, columnar, truncate apically. Pistillate inflorescence, flowers, and fruits not seen.

Distribution: COSTA RICA. Limón. Moist to wet forest on the Atlantic slope toward the Panamanian border, 1190 m elevation.

The specific epithet honors Rosibel Rodríguez of Guanacaste Province and the city of San José, Costa Rica. Known only from the type, *Chamaedorea rosibeliae* occurs in a rugged, inaccessible, little-explored area, and is closest to *C. anemophila* Hodel and, perhaps, *C. guntheriana*. It shares with *C. anemophila* the thin, fragile, delicate nature of the staminate flowers, and with *C. guntheriana* the spicate inflorescences with flowers maturing conspicuously acropetally along the rachis. The densely nodulose petiole, rachis, and basal portion of the pinnae readily distinguish *C. rosibeliae* from all other species in the genus. By the nature of its solitary staminate inflorescences and flowers with free and spreading petals, we place *C. rosibeliae* in subgenus *Chamaedoropsis*.

Until further collections are made in the rugged Alto Urén area, *Chamaedorea rosibeliae* should probably be considered rare.

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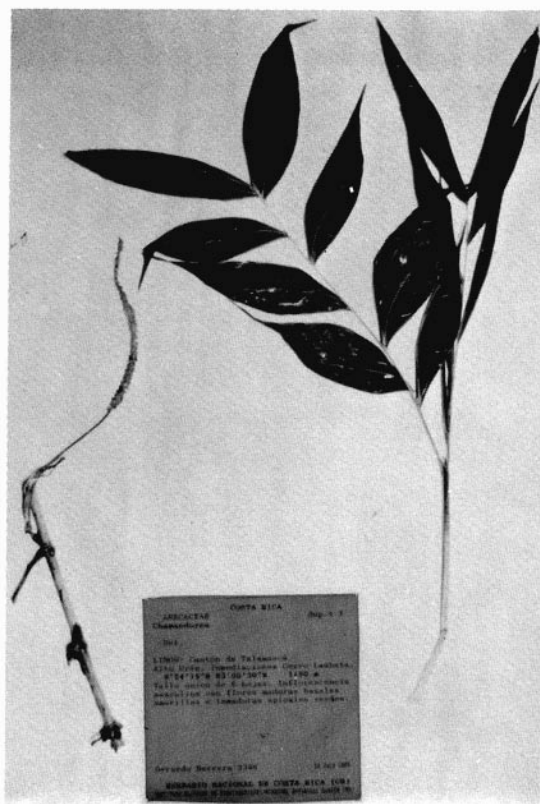


Fig. 10 *Chamaedorea rosibeliae* (holotype).