

Banks of streams, wet woods, about marshes, often in moist ravines in mountains, well distributed in Cuba, as in Pinar del Rio, Habana, Santa Clara, Oriente; Isle of Pines.

Type locality, Province of Habana, western Cuba, *Wright no.* 1865.

It is a characteristic tree of arroyos and mountain streams in lower and middle altitudes. In Cuba it has been said, "Donde hay manaca hay agua y buena," which being translated means that where one finds manaca one also finds water that is good. The word *dulcis* (sweet) refers to the edible flowers, used in comfits.

† 3. ***Calyptronoma quisqueyana***, spec nov. HISPANIOLAN OR QUISQUEYAN MANAC. Figs. 86, 89, 92, 94.

Magna arbor valida ad 10 m. alta; truncus 3-4 dm. in diam. crasse annulatus: frondes pinnatæ, 3 m. vel longæ; pinnæ ad 1 m. longæ 7 vel 8 mm. latæ, valde costatæ: spadix matura ad 1 m. longa, pedunculus annulatus; spatha prima 8-12 cm. lata, anceps; rachillæ aperte floreatæ, costatæ in longitudine cum siccæ: fructus 5-6 mm. longus, partes florales caducæ, mesocarpium paucis validis lineis parallelis in uno latere; semen pericarpio aptum.

Stout stocky tree to 10 m. tall, trunk closely ringed, 3-4 dm. in diameter above base, supporting a broad heavy head of leaves 3 m. or more long: pinnæ to 7 or 8 mm. broad, dull above and lighter green underneath, to 1 m. long, ribbed and grooved, glabrous or midrib underneath somewhat scaly and not much more prominent than the several lateral ribs, long-attenuate, the rachis strongly angled in section and ridged in center above: spadix large and heavy, at first lying in the trough on the upper side of the great petiole, this trough 6 dm. to 1 m. long and sharp-edged and 2 dm. across at base, spadices soon declined but held on trunk by expanded bases after the leaves fall; peduncle 6 dm. long, stout and mostly nearly terete, bracts few or none but collar evident; rachillæ rather loosely flowered, drying into angled strands; permanent or primary spathe woody or very stiff, to 8-10 or 12 cm. broad and 2-edged: fruit small, about 5 or 6 mm. long when ripe and mature, parallel-ribbed nearly to top on one side, the dry floral envelopes usually not adherent to it when it falls; seed adherent in its case.

Hispaniola (*Quisqueya* of the aborigines), along streams and in wet places in mountains in both Haiti and Santo Domingo; apparently local.

Type locality, Morne Saut d'Eau, Chaine des Matheux, Ouest, Haiti, *Bailey 229, 229a*, beyond and above Ville Bonheur in threads of a mountain stream.

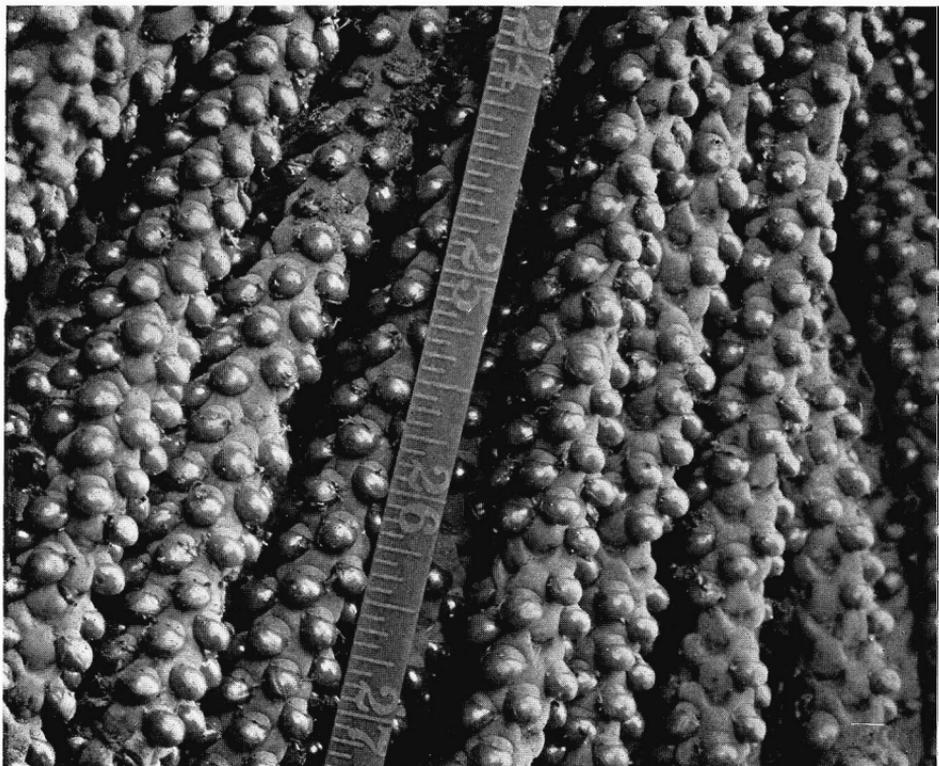
It has been supposed this is the palm intended in *Geonoma? Plumeriana*, Martius (*Palmetum Orbignianum*, 34, 1847); but neither the diagnosis in Martius, taken from Plumier, nor the published picture in Plumier's *Nova Plantarum Americanarum Genera*, 1703, represents the present

species and there appear to be no original specimens in the Martian herbarium: to this problem I hope to return.

- † 4. *Calyptronoma rivalis*, trans. nov. PUERTO RICAN MANAC. Figs. 89, 90, 91, 92, 94, 99, 100.

Cocops rivalis, O. F. Cook, in Bull. Torr. Bot. Club, xxviii, 568, t. 47 fig. 2 (1901).

Stout tree to 8 m. tall, the obscurely ringed trunk 2-3 dm. in diameter near base, carrying a heavy head of horizontal side leaves from which the many closely placed pinnæ droop gracefully, a few of the spent leaves finally hanging along the trunk: leaves 2-3 m. long; petiole with expanded ascending base as it stands on the tree, the rachis strongly angled in cross-section and in its lower length ridged in middle above; pinnæ not stiff, 5 cm. more or less broad and 1 m. or more long, dull in color, but lighter underneath, glabrous unless scaly on midrib underneath, the several side ribs prominent, points long-attenuate: spadix usually more than 1 m. long at full extension, the long rounded peduncle with



100. PORTION OF A FRUIT-CLUSTER of *Calyptronoma rivalis*, slightly enlarged; fruits not mature.