

New Palms from the Pacific, II*

HAROLD E. MOORE, JR.

L. H. Bailey Hortorium, Cornell University, Ithaca, New York, 14850

Specimens collected by members of the Royal Society Expedition to the Solomon Islands in 1965 and by several individuals in the Solomons and in New Caledonia represent taxa not previously described or otherwise of interest because of shifts in generic disposition. Those for which material seems adequate are described here.

BURRETIOKENTIA

Burretiokentia hapala H. E. Moore,
sp. nov.

Ab Burretiokentia Vieillardii rachillis dense et longe tomentosis 14–15 mm. in diam., fructibus ovoideis ca. 16 mm. longis infra medium latissimis differt.

Stem solitary, dark green with prominent pale nodes, erect, to 10 m. high, ca. 7.3 cm. in diam. near enlarged base, ca. 5.7 cm. D.B.H., the internodes ca. 12.5 cm. long. Leaves ca. 10, spreading; sheath ca. 1 m. long, olive-green (but inner sheaths pinkish before exposure), densely covered with gray-brown tomentose scales, or brown-punctulate where scales have been worn or rubbed off, with prominent oblique lines from petiole base toward the line opposite the petiole; petiole very short, ca. 5 cm. long above dry margin of sheath, green, concave above, convex below, where clothed with brown-centered, pale-margined, waxy scales or merely brown-punctulate from persistent scale bases; rachis ca. 2.4 m. long, lower surface rounded and rather densely brown-punctulate or with brownish-tomen-

tose scales where protected, upper surface channelled with marginal grooves near base, to deltoid at apex and rather densely pale-tomentose scaly or brown-punctulate: pinnae about 40 on each side, regularly arranged, narrowly elliptic in general outline, tapered to a strongly reduplicate base and an obliquely acute apex, dull green, irregularly and sparsely brown-punctulate above, paler and densely brown-membranous-lepidote or brown-punctulate below, the midnerve prominent and elevated above, clothed below, at least basally, with shining, brown, basifixed or medifixed, lacerate, membranous scales, secondary nerves ca. 5 on each side, prominent below and clothed basally with scales like those of the midnerve, tertiary nerves numerous, lower pinnae ca. 5.5 dm. long, 2 cm. wide, median pinnae ca. 9 dm. long, 5 cm. wide, apical pinnae ca. 3.3 dm. long, 3 cm. wide. Inflorescences 3–4 (in type) among the leaves, about twice as broad as long, densely pale-brown tomentose in all parts except at the base below the insertion of the first bract; bracts 2, green in bud (not obtained); peduncle very short, ca. 5–6 cm. long; rachis ca. 13–16 cm. long to base of terminal flowering portion; branches ca. 13–14, the lowest branches spreading, nearly as long as entire inflorescence, with short peduncular portion, divided into ca. 7 rachillae to ca. 35 cm. long, 14 mm. in diam. (in staminate bud), median branches with 2–3 rachillae, the apical 6–7 rachillae undivided, to ca. 34 cm. long, 14 mm. in diam. (including a central axis 4–5 mm. in diam. clothed with intermixed brown and white hairs to 5 mm. long). Stam-

*From work relating to National Science Foundation Grants GB-1354 and GB-7758. For an earlier paper, see *Principes* 10: 85–99, 1966.

inate flowers 5–5.5 mm. long, essentially symmetric; sepals 2.5–3 mm. long, about half as long as petals, broadly imbricate, glabrous except minutely fimbriate margin; petals ca. 3.5 mm. long; stamens 6, filaments sharply inflexed at the apex in bud, anthers ca. 2.5 mm. long with sterile portion in center of each locule laterally; pistillode angled-columnar, truncate, about one-half as long as stamens: pistillate flowers (from a flower remaining on an old inflorescence branch) ca. 6 mm. long; sepals ca. 3 mm. long, broadly imbricate and rounded; petals about 6 mm. long; staminodes apparently 3, dentiform. Fruit (not completely mature, from *Lavoix 25*) ovoid, 16 mm. long, 9 mm. in diam., drying granulose-roughened; stigmatic residue exactly apical; endocarp (from type) 10 mm. long, 8 mm. in diam., the hilar keel about as long as the lateral processes, the surface more or less roughened, the lateral processes flanking a dorsal groove; seed shaped like the endocarp, 8 mm. high, 6.5 mm. in diam.; endosperm homogeneous; embryo basal.

Specimens examined. NEW CALEDONIA: in gallery forest along stream in *Melaleuca* savanna, on road to Parari from Balade, alt. ca. 350 m., 8 April 1964, *H. E. Moore, Jr., R. Baretts, L. Chevalier & L. Lavoix 9324* (BH, holotype); same locality, 20 Sept. 1965, *L. Lavoix 25* (BH).

Burretiokentia hapala (from *hapalus*—soft to the touch) was thought at first to be a species of *Basselinia*, despite its robust habit, because of the very densely woolly rachillae in which the staminate buds appear to be sunken. The actual axis is, in fact, rather slender, measuring only 4–5 mm. in diameter, but the long hairs which obscure the axis and all but the tips of the flowers make it appear much thicker. It is the long hairs that suggest the epithet.

Examination of staminate buds and



1. Inflorescence of *Burretiokentia hapala*, branches partially trimmed, showing woolly rachillae (*Moore et al. 9324*, BH). Photo by Howard H. Lyon.

dissection of one fruit recovered from a fallen inflorescence, together with additional immature fruits from *Lavoix 25*, show that the correct genus for this striking palm is the previously monotypic *Burretiokentia*. This second species is readily distinguished from *Burretiokentia Vieillardii* by the woolly (Fig. 1) rather than glabrous (Fig. 2) rachillae; by the fruit (Fig. 3a) which is ovoid and attenuate toward the apex (when not perfectly mature) rather than nearly globose when fresh (Fig. 4o); and by the endocarp and seed with the adaxial keel higher than the lateral ridges (Fig. 3b–d) rather than lower (Fig. 4q, s).



2. *Burretio kentia* Vieillardii with inflorescences in several stages (Moore et al. 9334).

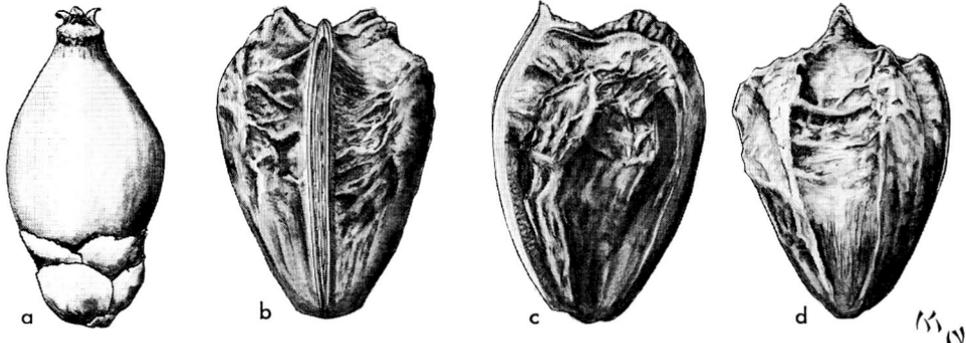
CLINOSTIGMA

Two undescribed species of *Clinostigma* were among palms collected by members of the Royal Society Expedition to the Solomon Islands in 1965. The genus had not previously been reported from these islands but is readily recognized by its usually scopiform, two- to three-times (rarely simply) branched

inflorescence, massive tall trunk, sometimes with stilt roots developed, large leaves having pinnae covered below with minute scales, and above all in the structure of the staminate flower with its acute, usually keeled sepals, asymmetric acute petals, 6 stamens with filaments inflexed at the apex, and a small, ovoid or conic-ovoid, briefly to deeply trifold pistillode much shorter than the stamens.

Fourteen names are recognized in the genus at present as representing species, though the number will probably be reduced when taxa in Samoa and the Fiji Islands can be properly studied. The distribution is unusual for palms: Bonin Islands (*C. Savoryanum*), Caroline Islands (*C. carolinense*, *C. ponapense*), Samoa (*C. onchorrhynchum*, *C. Powellianum*, *C. savaiiense*, *C. samoense*, *C. Vaupelii*, *C. Warburgii*), Fiji Islands (*C. exorrhiza* and *C. Smithii*, which may not be distinct), the Banks Group of the New Hebrides (*C. Harlandii*), and now the Solomon Islands with *C. Gronophyllum* and *C. haerestigma* described below.

Specific differences, so far as material permits an understanding of them, lie chiefly in the size and shape of fruit, position of the stigmatic residue in fruit, and in the seeds. Fruits of the two species described here are not completely mature, and though the endocarp prob-



3. *Burretio kentia hapala*. a, fruit $\times 2\frac{1}{2}$; b-d, endocarp in adaxial (b), lateral (c), and abaxial (d) views $\times 4$. (a from Lavoix 25; b-d from Moore et al. 9324, BH).