

SAN CRISTOBAL (EAST); 4 miles E. of Wainoni, headwaters of Huni R., ultrabasic outcrop, broad ridge top, 1600-1700 ft. altitude, 10 August 1965, T. C. Whitmore R S S 6309 (BH, holotype; K, isotype).

Physokentia Whitmorei is the only species thus far known from the Solomon Islands that shows an immediate and clear resemblance to species from Fiji and the New Hebrides. The sharply angled endocarp, white-barbate bracteoles of the triads, and the pinnae are very similar to those of *P. Thurstonii*. Though the seeds had not developed sufficiently to provide information on endosperm, it may be anticipated that the endosperm will be homogeneous.

The epithet is but a faint tribute to the devotion which Dr. Whitmore has lavished on the flora of the Solomon Islands and to the unfailing assistance he has provided me during and after field work in the Solomons.

5. **Physokentia Dennisii** H. E. Moore, *sp. nov.* (Fig. 2E.)

Folia regulariter pinnata pinnis utrinque 22-25 acutis uninerviis. Inflorescentia triplo-ramosa rachillis ad 45 cm. longis, bracteolis floris foeminei angustis, subiter in apicem angustum productis. Fructus aurantiaco-ruber, subglobosus, 15 mm. altus, 10-11 mm. in diam., endocarpio 12 mm. alto, 10 mm. in diam., fragili, 4-angulato, carinis dorsalibus et lateralibus obtusis, seminis endospermio homogeo.

Trunk solitary, to 10.5 m. high, with a dense mass of 100 or more stilt roots to 1.2 m. high, some roots branched, the upper portion of trunk light green, with short internodes.

Leaves spreading; crownshaft bright greyish-green, ca. 9 dm. long, considerably broader at base than at apex, covered when young or where protected with a dense indument of floccose

scales or densely brown-punctulate with persistent scale centers in age or where exposed; petiole elongate on juvenile plants but lacking or very short on mature trees (scarcely 2 cm. long); rachis ca. 1.8 m. long, densely covered above and below with minute, shining, brown, laciniate-fimbriate-margined, membranous, peltate scales or merely brown-punctulate where exposed or weathered; pinnae 22-25 on each side of the rachis, regularly arranged, the central ones ca. 78 cm. long, 7 cm. wide at middle, tapered basally to an insertion ca. 1 cm. wide; upper margin longer than the lower and straight, the lower narrowed toward the acute apex; both surfaces more or less densely lepidote or punctulate with minute, pale-membranous-margined, brown-centered, peltate scales or their persistent centers, midrib prominent and elevated on upper surface, with scattered floccose scales, the lower surface with prominent midnerve and 3-4 secondary nerves clothed with scattered, dull brown, irregularly linear, medifixed or basifixed, membranous scales 2-3 mm. long; apical and subapical pinnae shorter and narrower, 24-32 cm. long, 1.7-2.5 cm. wide, the tips often frayed and appearing praemorse; lower pinnae conspicuously narrowed and shortened toward base of rachis, the lowermost only ca. 15 cm. long, 5 mm. wide.

Inflorescence greenish-ivory, ca. 9 dm. long from base to apex, paniculately three-times branched, glabrous; bracts not seen; peduncle 15 cm. long, 2 cm. wide at apex; rachis ca. 26 cm. long to last branch, bearing ca. 17 branches, the lower branch ca. 45 cm. long, again twice-branched basally, simply branched apically into ca. 9 branches, the rachillae slender, elongate, to ca. 45 cm. long, 3 mm. in diam., upper branches progressively less branched to furcate or simple.

Flowers in triads to beyond the middle

of the rachillae, paired to solitary staminate distally, or some inflorescences largely or entirely staminate; triads subtended by a prominent rounded bract often deflexed in fruit, the bracteoles surrounding the pistillate flowers membranous, narrowly rounded and usually produced in a prominent narrow ligular process exceeding the bract, the bracteoles and pedicels glabrous or with sparse short brownish or whitish hairs, not conspicuously white-barbate: staminate flowers white, asymmetric, more or less rounded at the apex in bud, 4–5 mm. long; sepals ca. 2 mm. high, 2.5–3 mm. wide, more or less rounded with ciliolate margins, indistinctly nerved when dry, the outer often slightly keeled; petals ca. 4 mm. long, 2–2.5 mm. wide, asymmetric, rather distinctly nerved when dry; pistillode angled-columnar with angled apex, ca. two-thirds as long as the stamens in bud: pistillate flowers in bud ca. 4 mm. high, the perianth in fruit of 3 sepals 3–3.5 mm. high and often 3-lobed (entire and rounded in bud), of 3 petals ca. 6 mm. high.

Fruit subglobose, ripening orange-red, ca. 15 mm. high, 11 mm. wide, 10 mm. thick, (from preserved material) with excentrically apical stigmatic residue, drying wrinkled; exocarp smooth; mesocarp with a layer of sclerosomes immediately under the exocarp and few thin fibers in thin flesh; endocarp fragile, 4-angled, 12 mm. high, 10 mm. wide and thick, sharply keeled on the adaxial (hilar) side and operculate at the base, rounded-angled abaxially; seed not perfectly mature, shaped essentially as endocarp; endosperm homogeneous.

Vernacular name: *garagara* in the Kwara'ae dialect.

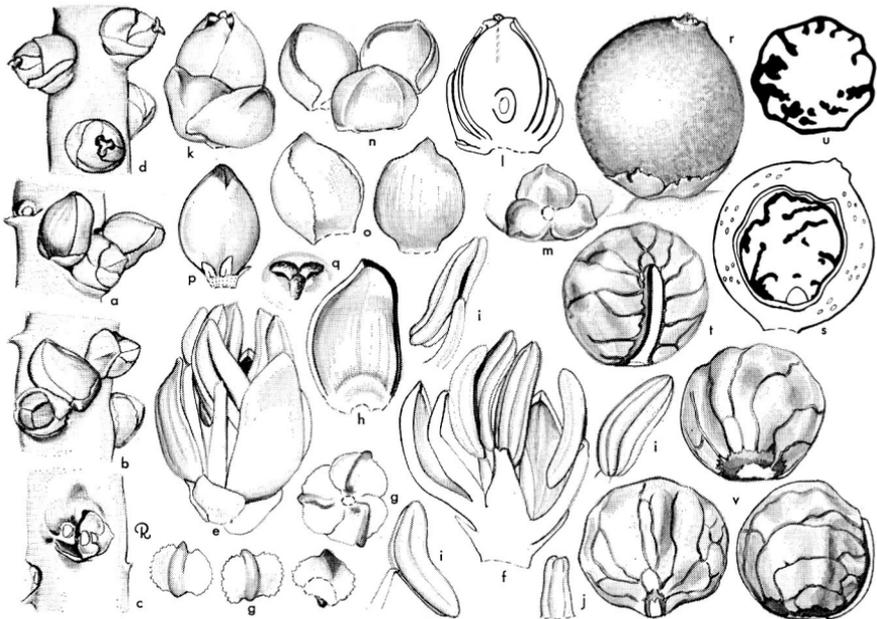
Specimens examined. BRITISH SOLOMON ISLANDS PROTECTORATE: GUADALCANAL (NORTH); headwaters of the Matiniko'o River, 11 April 1965, *G. F. C. Dennis s. n.* (BH, holotype);

headwaters of Tenaru River, path from Honiara to Betilonga Village, in forest over limestone, alt. ca. 1200 ft., 31 May 1964, *E. J. H. Corner & T. C. Whitmore B S I P 4391* (US, paratype).

Physokentia Dennisii is distinctive in several respects. The much ramified inflorescence with branches of three orders to 45 cm. long is unlike that of the remaining species, all of which have branches only to the second order except for rare instances of furcation in second order rachillae. The small fruits ripen orange-red (fide Corner and Whitmore) rather than black as in remaining species with homogeneous endosperm and the endocarp is much less sharply angled than in other species except *P. insolita*. Bracteoles surrounding the pistillate flowers are especially striking in their ligular apices. Although possessed of a fruit in the size range of *P. rosea* from Fiji, *P. Dennisii* does not seem especially related to that species, rather in its red fruit, endocarp with obtuse angles, and homogeneous endosperm it stands midway between *P. insolita* on the one hand, the remaining species on the other.

The epithet pays tribute to the persistent efforts of Mr. Geoffrey F. C. Dennis, Forest Department, Honiara, to obtain essential material of this and other species of palms, and more than that to the assistance so readily offered during and since the writer's brief field experience in the Solomons during 1964. The present species was then encountered sterile at its type locality when Mr. Dennis, Dr. and Mrs. Whitmore, and Mr. James Tedder, District Commissioner of the Central District, with his wife accompanied the writer on a Sunday excursion.

Inflorescence bracts are not described in detail. The following excerpt from a letter dated April 12, 1965—describing Mr. Dennis's attempt to carry back alone



3. *Physokentia insolita*: a, portion of rachilla with triad $\times 2$; b, abnormal triad of two pistillate flowers and one staminate flower $\times 2$; c, triad with flowers removed to show bract and bracteoles $\times 2$; d, portion of rachilla at pistillate anthesis $\times 2$; e, staminate flower $\times 4$; f, staminate flower in vertical section $\times 4$; g, staminate calyx, exterior view, and individual sepals $\times 4$; h, staminate petal, interior view $\times 4$; i, stamens $\times 4$; j, pistillode $\times 4$; k, pistillate flower $\times 4$; l, pistillate flower in vertical section $\times 4$; m, pistillate calyx $\times 4$; n, pistillate sepals $\times 4$; o, pistillate petals $\times 4$; p, pistil and staminodes in bud $\times 4$; q, stigmas $\times 8$; r, fruit $\times 2$; s, fruit in vertical section $\times 2$; t, endocarp showing adaxial keel $\times 2$; u, seed in cross-section $\times 2$; v, seed in three views $\times 2$. (From material of *Whitmore 4095* preserved in alcohol [BH].)

specimens of the palm from what I know to be an exhausting journey—provides more detail:

"I also collected a flower sheath, which unfortunately got lost in my struggle through the long grass on the ridges on my homeward trip, but from what I recall it was an ivory slightly green-tinted colour (as are the new flower panicles—flowers being white) 18 inches long, 3 1/2 inches wide, of a very flimsy soft texture, the base of it having a ragged edge where it has broken loose from the base of the crownshaft."

Although only two collections from the vicinity of Honiara are explicitly cited, it appears likely that the species also occurs near Mt. Gallego, for the following Royal Society Expedition collection, though lacking fruit, agrees well in other details with the type and paratype: Monitor Creek, headwaters, 7 miles inland below Mt. Gallego, 2000 ft. alt., 6 July 1965, *T. C. Whitmore R S S 6050* (BH).

6. *Physokentia insolita* H. E. Moore, *sp. nov.* (Figs. 2F, G, 3, 4.)

Folia irregulariter pinnata pinnis utrinque 5–6 acutis 5–8–nervibus. In-