Ptychosperma waitianum (Palmae)

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In 1956, the late Leonard J. Brass, a prodigious collector of New Guinea plants, sent to Florida some seeds of a palm from Modewa Bay in southeastern Papua. The seeds germinated at the Fairchild Tropical Garden and the plants proved to be an unusual and very attractive little *Ptychosperma.* Palm enthusiasts visiting the garden over the years have been intrigued by the palm but it has remained unnamed. I have been in New Guinea now for over five months, studying the genus *Ptychosperma* in its native haunts and have made a thorough review of the literature on the subject. As my understanding of this large and complex genus has crystallized, it has become clear that the little palm growing at Fairchild represents a new, undescribed species.

I am naming the new species *Ptychosperma waitianum* in honor of Lucita H. Wait, whose tremendous efforts as Executive Secretary of The Palm Society and manager of the seed bank need no description here. The recent retirement of Mrs. Wait from the position of Executive Secretary adds new significance and timeliness to the dedication of the new species.

Ptychosperma waitianum F. B. Essig, *sp. nov.*

Palma humilis; caulis solitarius, 1.2–2.0 cm. in diam.; folia 73 cm. longa, pinnis late cuneatis utrinque 8–9 in nervis abaxialis ramentis numerosis elongatis convolutis gerentibus; inflorescentia rubra et dense fusco-furfuracea, simplicter ramosa vel ramis infimis furcatis vel ramosis; flores dense fusco-lepidoti; fructus niger, 1.7–1.9 cm. longus; semen leviter 5-sulcatum albumine aequabili.

A very small palm with solitary stem 1.2–2.0 cm. in diam., to 5 m. high, internodes farinose and brown-lepidote-punctate when young.

Leaf sheath 18–21 cm. long with a ligular appendage 5–7 cm. long at the apex opposite the petiole, sheath surface minutely lepidote-punctate and at the apex coarsely dark-furfuraceous; petiole 25–33 cm. long, glabrous but sparsely and minutely puncticulate; rachis 40–47 cm. long bearing 8–9 pinnae on each side; pinnae at middle of leaf broadly cuneate and deeply concave-indentate, 11.5 cm. long on the midrib, 19–21 cm. long along the margins, the upper margin somewhat more attenuated than the lower, abaxial surface near the base with numerous, elongate, twisted, membranous scales on the midnerve and prominent secondary nerves; apical pinnae 4–5-costate, to 25 cm. long and 11 cm. wide at apex.

Inflorescence 23 cm. long, simply branched or the lowest one or two branches furcate or once-branched with ca. 3 rachillae; bracts subtending the lower branches well developed and conspicuous, though variable in size; peduncle flattened, 2 cm. long, 7 mm. wide and 3 mm. thick; rachillae 5–12, 16–18 cm. long and about 2 mm. thick; all axes densely dark-furfuraceous at anthesis (*Essig 710121-1*), red, nearly glabrous in fruit but remaining thickly dark-furfuraceous in protected parts.

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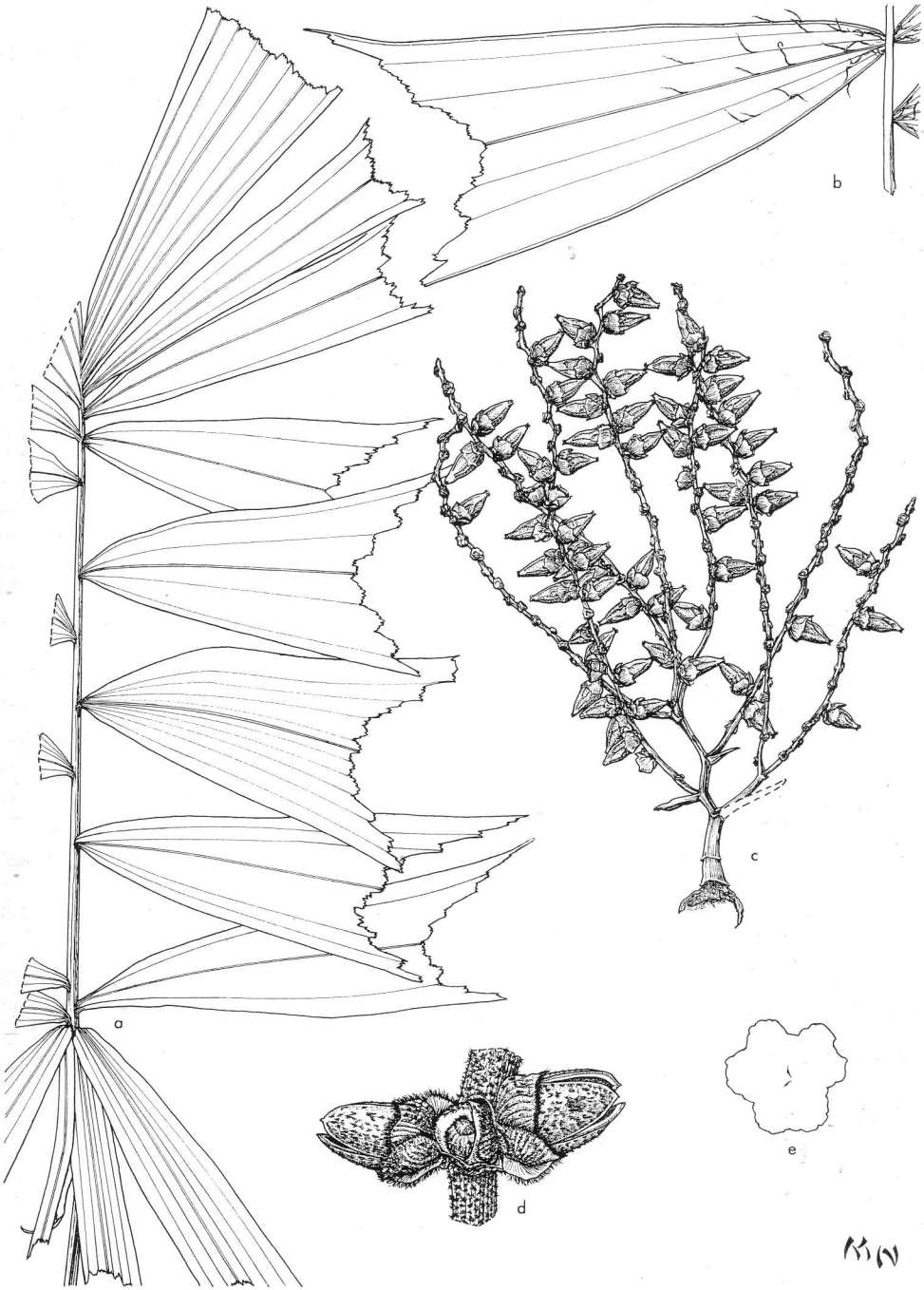

1. *Ptychosperma waitianum*. a, leaf × 1/5; b, lower surface of a pinna to show scales × 1/3; c, infructescence × 1/3; d, triad of two staminate flowers and a pistillate bud × 3; e, seed in cross-section × 3. a, b, d from *Essig 710121-1* (BH); c, e from *Brass 28882* (A).

Flowers densely dark-lepidote; staminate flowers 6–7 mm. long, sepals 2–2.5 mm. high, densely red-black furfuraceous with deciduous branched hairs, sometimes becoming only dark-lepidote with ciliate margins, petals with prominent red-brown membranous scales outside, yellow and glabrous inside, stamens about 20, equalling the slender pistillode in length; pistillate buds at staminate anthesis ca. 3.5 mm. high, red-brown lepidote, the perianth moderately lepidote in fruit, sepals then ca. 3 mm. high, petals ca. 8 mm high.

Mature fruit "black, soft and fleshy," 1.7–1.9 cm. long when dry, rostrum 2.5 mm. high and 2.5 mm. thick at the base, staminodes 3–5, narrow and pointed or sometimes laterally fused into broader segments within the perianth; seed shallowly 5-grooved, 6 mm. in diam., endosperm homogeneous.

Distribution: in rainforest on coastal hills of the southern Milne Bay District, Papua New Guinea.

Specimens examined.

PAPUA NEW GUINEA: MILNE BAY DISTRICT; rainforest of hills, Modewa Bay, Modewa, alt. 20 m., 13 July 1953, *L. J. Brass 28882* (LAE, holotype; A, isotype); hills above Kaporika Village, Lat. 10:20 S., Long. 150:15 E., alt. 250 ft., 4 June 1964, *E. E. Henty N.G.F. 16933* (LAE). CULTIVATED. UNITED STATES: Florida; Fairchild Tropical Garden, Miami, acquistion no. F. G. 57-22, 21 Jan. 1971, *F. B. Essig 710121-1* (BH).

Ptychosperma waitianum falls into the subgenus *Actinophloeus* because of its homogeneous endosperm and the conspicuous bracts subtending the lower branches. Of the species previously described, only *P. montanum* and *P. cuneatum* appear to be closely related. These, however, have glabrous or nearly glabrous flowers in contrast to the densely dark-lepidote flowers of the new species, and the inflorescences of both are large and much-branched.

There is some variation among the collections examined. *Essig 710121-1* is material cultivated in the Fairchild Tropical Garden, the seed of which came from the type collection (*Brass 28882*). It is somewhat more robust than the wild material. Another specimen, *Henty N. G. F. 16933*, from the Alotau region north of Modewa Bay, fits well into the new species but shows some minor differences from the type. The inflorescences are smaller and strictly simply branched, the bracts subtending the lower branches are somewhat smaller, the staminodial segments somewhat broader, and the twisted scales on the lower surface of the pinnae less abundant.