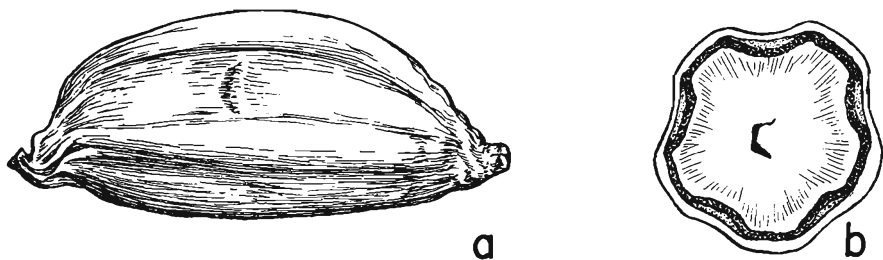


ovoid conical style exerted about 3 mm.: fruit red when ripe, ovoid, slightly oblique 3.2 cm. long, 1.7-1.9 cm. broad, fruiting calyx 2.5-3 mm. fruiting corolla 5 mm. long, indurate, forming a shallow cupule.

Caroline Islands. Ponape: s.l. January 1915 *G. Koidzumi* (TI, 3 sheets); s.l. January 20, 1937, *R. Kanehira 3934* (FU); Mt. Tolenuip, 400 ft., July 14, 1949, *S. F. Glassman 2529* (US, 2 sheets); Kamal, Nat, 50 m., September 1935, *Hosino (Kanehira's) 3703* (FU, type, 2 sheets); Parkiel, Kolonia, 500-1000 ft., August 1925, *Kanehira 742* (FU); Mt. Sankaku, Kolonia, 100 m., July 15, 1939, *S. Hatusima 10,788* (FU); Nampil, August 25, 1933, *T. Hosokawa 6034* (A, 2 sheets, US); Coloma-Palkier kan Nanpomaru, August 23, 1940, *T. Hosokawa 9543* (A, 2 sheets). [Tolailuka, 7 March 1936, *Takamatsu 835*, fide Burret.]

Endemic to Ponape, growing in rain forests at low to moderate altitudes up to 350 m., on volcanic soils.

† *Ptychosperma Ledermanniana*, (Becc.) comb. nov. Fig. 137.



137. *PTYCHOSPERMA LEDERMANNIANA*. a, fruit $\times 1$; b, fruit in cross-section $\times 1$.

Ponapea Ledermanniana, Becc. in Engler Bot. Jahrb. lix, 14 (1924); Kanehira, in Bot. Mag. Tokyo, xlv, 274 (1931), in Journ. Dept. Agr. Kyushu Imp. Univ. iv, 284 (1935), in Journ. Jap. Bot. xii, 731 (1936); Glassman, in Bull. Bernice P. Bishop Mus. 209, 111 (1952).

Ponapea kusaiensis, Burret, in Notizbl. Bot. Gart. Berlin, xv, 92 (1940).

Slender tree, up to 10-12 m. tall, trunk about 10 cm. in diameter, outer woody cylinder hard: leaves 2-3 m. long; sheath grayish lepidote becoming brownish, strongly striate when dry, about 50 cm. long, sinus *l*-shaped, thin-margined; rachis closely light-brown lepidote when young, uncticulate when older; pinnæ more or less equidistant, opposite to subopposite, up to at least 9 cm. apart, obliquely truncate, median at least 8 cm. long, 5.8 cm. wide, apical ones to 45 cm. long, 3.9 cm. wide, strongly bilobed, petiole 27 cm. long, concave above, pinnæ 4 cm. lower on one side than other, median and marginal nerves prominent, 2 secondaries on

either side, elevated and sharp on upper surface, rounded below, minor nerves of at least 3 orders irregularly developed in intervals, conspicuous dark brown narrow tightly twisted basifixed scales 3-7 mm. long scattered on median and secondary nerves on lower surface near base, marginal nerves brown punctulate: panicle diffuse, glabrous, about 60-80 cm. long; bracts inserted about 1-2 cm. above base and about 1-2 cm. apart, outer bract up to 30 cm. long, lanceolate, inner about 40 cm. long, about 5.5 cm. wide at widest part, acumen about 4 cm. long, 7 mm. wide; peduncle 1.8-2.5 cm. wide, somewhat compressed, rounded at edges, primary branches 7-12 mm. at widest part, ultimate rachillæ 1.5-2 mm. thick, slightly flexuous toward tips, internodes 1.5-2 cm. long ultimate ones shorter: flowers white, staminate about 1 cm. long 0.5 mm. wide in mature bud, apex obtuse, calyx 3 mm. long, petals 9 mm. long, 3.5-4.5 mm. wide, stamens between 110 and 120, filaments 2-3.5 mm. long, anthers 3-3.5 mm. long, shrinking and curving on dehiscence, pistillode 3 mm. long; pistillate flowers in bud 6 mm. high, sepals 3 mm.: fruit red when ripe, fusiform, 3.6-4.4 cm. long including basal cupule, 1.6-1.7 cm. thick at widest part, crowned by the ovoid indurate style, 2-3 mm. high.

Caroline Islands. Ponape: slopes above Nanipil toward Tolun Nanket mountain, drainage of Townjokola River, Not Distr. 250 m., August 13, 1946, *Fosberg 26466* (US, BH, BISH); Mt. Tolenkup, 400 ft., July 14, 1949, *Glassman 2528* (US, 2 sheets); Nut, January 18, 1937, *Kanehira 3924* (FU); s.l. January 1915, *Koidzumi* (TI, 3 sheets). Kusaie: north ridge of Mt. Matanta (Buache), above Tafonshak Village, August 20, 1946, *Fosberg 26608* (BH, BISH, US); near Maarem 300 m., August 10, 1939, *Hatusima 11, 162* (FU); s.l. 500 m., July 1931, *Kanehira 1361* (FU, 2 sheets, US, 2 sheets); Finkol, July 19, 1938, *Hosokawa 9342* (A, US); Hinkolu, March 16, 1937, *Kanehira 4180* (FU). [The type, *Ledermann 13397* was not seen, nor was that of *P. kusaiensis*, *Takamatsu 341*.]

Burret's distinction between *P. Ledermanniana* and *P. kusaiensis* based on thickness of rachillæ and shape of bracts subtending branches of the panicle is not valid when a series of specimens is examined.

A rain forest tree, mostly in second story, commonest at relatively low elevations, at least in Ponape, but reaching 600 m. in Kusaie near top of Mt. Matanta, where the crown is emergent from the low scrub-forest. Found only on volcanic soils.

Native name "Kattai" on Ponape according to Glassman and Kanehira, "Kuter" according to Kanehira. The young bud is said by Glassman to be not tender enough for eating.

† *Ptychosperma palauensis*, (Kanehira) comb. nov.

Ponapea palauensis, Kanehira, in Journ. Dept. Agr. Kyushu Imp. Univ. iv, 432 (1935), *nomen nudum*, and in Journ. Jap. Bot. xii, 732 (1936).