

when dry, 20-22 mm. long, 7-8 mm. in diameter, obovoid, abruptly narrowed at the apex to an apical or very slightly eccentric styler cap 1 mm high, tapered to a slender constricted base ca. 5 mm. long, subtended by a rather closely appressed perianth 6-7 mm. high, 5-7 mm. across, the sepals 2-3 mm. high, petals not conspicuously dark margined, slightly crenulate, briefly triangular-tipped, staminodes 2-3, broadly dentiform the bracteoles subtending the fruit 0.5 mm. wide or less, flat and inconspicuous; seed 11-12 mm. long, 5.5-6 mm. in diameter, attached along one side and seated at the top of a slender fibrous base 5 mm. high, the vascular branches descending from the apex, more or less parallel and loosely anastomosed, endosperm homogeneous.

Fiji Islands: Kandavu; hills above Namalata and Ngaloa Bays, 200-400 m. alt., October 13-18, 1933, *A. C. Smith 162* (NY, type, GH UC, US isotypes).

*Veitchia Smithii* is distinguished from *V. vitiensis* chiefly by the much ramified panicle with very short divaricate ultimate rachillæ. The fruit resembles that of *V. vitiensis* var. *Parhamiorum*. Collections discussed under *V. vitiensis*, notably *Degener and Ordonez 14765* and material from Bogor, approach *V. Smithii* in having short rachillæ. The relationship between the two species needs close study based on more ample material and field observation.

† 10. *Veitchia petiolata*, (Burret) trans. nov. Fig. 150D.

*Vitiphænix petiolata*, Burret, in Bernice P. Bishop Mus. Occ. Papers, 11 (4), 8 (1935).

Stems 15-35 m. high: sheath, lower surface of petiole and of rachis dark brown furfuraceous or punctate, the petiole more than 25 cm. long rachis lax at the tip but not markedly arcuate-reflexed; pinnæ inserted at intervals of 1.5-2 cm. apparently throughout the leaf, ca. 40 per side directed forward at the narrow base but soon twisted and more or less stiffly horizontal from the rachis, those at the middle of the leaf 55 cm long, 4 cm. wide, coriaceous, broadest near the middle then tapered to a finely toothed obliquely acute apex, glabrous above and below except for a line of dull brown basifixed narrowly linear twisted scales on the midrib near the base and brown-punctate margins, pinnæ progressively smaller toward the apex: panicle pedunculate, thrice-branched, minutely brown-lepidote at least on the major axes, compressed and angled, the ultimate rachillæ nearly straight or slightly flexuous bearing triads of ♂ ♀ ♂ flowers nearly throughout, 10-13 cm. long with 18-27 flowering nodes loosely spiralled below, becoming distichous or nearly so above; staminate flowers 7 mm. long, the calyx spreading when dry but appressed when wet, the sepals ca. 1.5 mm. high, 3-3.5 mm. wide, petals 6.5 mm. long stamens 48-50, the filaments about half as long as the anthers, these 1 mm. long, acutely and deeply bifid at the apex, deeply sagittate at the base; pistillate flowers subtended by conspicuous bracteoles 0.5-1 mm. high: fruit (not completely mature) 18-19 mm. long, 6 mm. in diameter.

narrowly ellipsoid, tapered to the base and the very shortly umbonate apex, the perianth 6.5-7 mm. high, scarcely crenulate, membranous-margined, the petals with a conspicuous triangular apex; exocarp closely adherent to (and partially including ?) an underlying layer of short thickened fibers 0.5-1 mm. long, when dry appearing pebbled, seed not completely developed, rounded at the apex, endosperm homogeneous.

Fiji Islands: Vanua Levu; Mbua, southern slope of Mount Seatura, alt. 500 m., April 27-28, 1934, *A. C. Smith 1687* (NY, type, GH, UC, US, isotypes).

The closely placed pinnæ of *Veitchia petiolata* are more like those of *V. Joannis* than those of *V. filifera* and *V. sessilifolia*. Added differences in the fruit attest to the validity of the taxon. Although fruit from the type was forwarded to Florida with that of *V. sessilifolia*, I have seen no plants in cultivation, doubtless due to incomplete maturity of the seeds.

Burret used the spreading calyx of staminate flowers as an additional character. When flowers are boiled for dissection, this distinction disappears as the sepals assume the normal erect position. A similar circumstance is found in *V. sessilifolia* and is probably attributable to the immature stage in which they were collected.

† 11. ***Veitchia sessilifolia***, (Burret) trans. nov. Fig. 151.

*Vitiphœnix sessilifolia*, Burret, in Bernice P. Bishop Mus. Occ. Papers, 11 (4), 9 (1935).

Trunk to 10 m. high, 11 cm. in diameter, in cultivated specimens narrowed and then abruptly thickened toward the base: leaves 6-7, erect or ascending with strongly arcuate tips, the sheath ca. 50 cm. long, 12.5 cm. in diameter, closed but soon splitting opposite the petiole, deep green with white floccose-lepidote indument outside, yellow and smooth inside; petiole 10-26 or more cm. long, to 5 cm. wide and 3 cm. thick at the base, rounded and densely canescent below with interlocking appressed acicular-margined lepidotes, at length becoming densely brown-punctate, canescent to glabrescent above and with castaneous twisted basifixed scales especially near the acute margins above, the rachis to 3.3 m. long, green above, rounded and gray-lepidote-tomentose when young becoming dark brown furfuraceous or brown-punctate in age below; pinnæ 46-47 on each side of the rachis borne in a single plane and regularly alternate to subopposite or the median occasionally paired, coarse, coriaceous, narrowed at the base, broadest at the middle, the apex obliquely acute to truncate, the midnerve and marginal nerves prominent on both surfaces, secondary nerves several and inconspicuous, deep green, glabrous and glossy above, glabrous and dull below except for brownish- or grayish-lepidote or -punctate marginal nerves and pale brown or grayish slender, twisted, basifixed, more or less deciduous, filiform to oblanceolate-linear scales to 9 mm. long on the midrib near the base and occasionally densely and minutely brown-lepidote on the surface about the very base, the lowermost pinnæ