Revision of the Genus *Pandanus* Stickman, Part 26

*Pandanus mayotteensis* from the Iles Comores

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Up to the present there has been known only one species of *Pandanus* in the Iles Comores, *P. maximus* Martelli (sect. *Pandanus*), indigenous to the Ile Grande Comore. Now, there can be announced a second species from the islands, *P. mayotteensis* (sect. *Vinsonia*).

The islands lie in the Mozambique Channel, about midway between Madagascar and Mozambique, Africa.

**Pandanus mayotteensis** sp. nov. (sect. *Vinsonia*)

Figs. 245, 245A, 246.

Nom. vern.: "doua," "pandanus panaché" (= foreign *Pandanus*).

**Diagnosis Holotypi:** Arbor 4–6 m alta 10 cm diametro, cortice bruneo sublaevi, radicibus fulturosis nullis, foliis 1.5–1.6 m longis 5.7–6.7 cm latibus supra olivaceis infra pallidioribus coriaecis in sectione mediiali cum 43–45 nervis parallelis secundaris in dimidio quoque proxima basem cum nervis tertiiis transversis eis reticulis breviter oblongi formantibus supra latiter sulcatis et cum plcis binis in sectione M-formatis laminis ligulatis sed in media ultima in apice 10 cm longo trigono subulato diminuentibus eo 10 cm ex apice 5 mm lato basi amplexicaulis inermi sed ex 10.5–15 cm marginibus cum serrae 0.7–1.5 mm longis 2–8 mm separatis albis sed apicibus brunneis, midnervo infra paene ad medium inermi, in sectione mediiali marginibus cum aculeis 0.5–0.7 mm longis 3–7 mm separatibus ascedentibus valde adpressis albis, midnervo infra cum aculeis simulatibus sed 0.7–1 mm longis 4–7 mm separatis, in apice subulato marginibus et midnervo infra cum serrulis 0.3–0.5 mm longis 1.5–3 mm separatis, inflorescentia foeminea terminali cum syncarpio solitario erecto, pedunculo 35 cm longo 2 cm diametro recto 3-laterato cum bracteis foliosis paucis deciduis, syncarpio 15 cm longo 14 cm diametro cum 55 phalangibus eis quando viridibus 5.3–5.5 cm longis 3.7–4.6 cm latibus 3–4.4 cm crassis sed illis siccatis 4.5 cm longis (forsan partim ex animalibus editis) 2.8–4.1 cm latis 2.2–3.2 cm crassis brunneis (geminis 5.6 cm latis et cum 6 loculis) cuneatis 5–6-angulosis "rubris" parte ⅓ supra libera lateribus planis apice depresso convexo (vel semioborculari) laevi lucido quando submaturis sinu centrali brevi distincto 0.5–2 mm profundo quando maturis sinus 5–6 mm profundis confuentibus, carpelis 3–6, stigmaticis 4–8 mm latis cordatis ad oblati-reniformibus brunneis papillosis centripetalibus in phalangibus viridibus prostratis sed in illis siccis obliquis et salientibus, endocarpio supramediiali bruneo osseoso lateribus lateralibus 1 mm crassis intra laevibus et lucidis cum humeris, mesocarpio apicali cum fibris fortibus et medulla, mesocarpio basali fibroso et carnoso.

**Description of All Specimens Examined:** Trees 4–6 m tall, 10–35 cm in diameter; bark brown, fairly smooth; prop roots none (or when present to 70 cm long, 2 cm in diameter, remotely muricate); leaves 1.03–1.6 m long, 4–6.7 cm wide, above olive-green, below paler green, coriaceous, at midsection with 37–45 parallel secondary veins in each half; near the base with tertiary cross veins, visible on both sides, making a network of short oblong meshes; blade with a broad central furrow and two lateral pleats, thus M-shaped in cross section, almost ligulate, but tapering in outer half to the trigonous subulate 10 cm apex, this 10 cm down 5 mm wide, the base amplexicaulis and unarmed, but beginning at 8–15 cm the margins with serrae 0.7–1.3 mm long, 2–8 mm apart, white with slight brown tips; on the underside the midrib unarmed almost to the middle; at midsection the margins with prickles 0.5–0.7 mm long, 3–7 mm apart, subulate, closely appressed ascending, white; the nearby midrib below with similar prickles but these 0.7–1 mm long, 4–7 mm apart; near the apex the margins and midrib with serrulations 0.3–0.5 mm long, 1.5–3 mm apart; pistillate inflorescence terminal, bearing the solitary syncarp erect on a straight peduncle 35 cm long, 1.7–2 cm in diameter, 3-sided, with a few deciduous leafy bracts; syncarp subglobose, 15 cm long, 14 cm in diameter, bearing 38–55 phalanges, these when still green 5.3–5.7 cm long; 3.7–5.5 cm wide, 3–4.4 cm thick, but the fallen dried ones about 4.5 cm long (though it is likely that animals

FIG. 245. Pandanus mayotteensis, holotype. a, b, Dry fallen phalanges, lateral view, × 1; c, fully grown but green phalange, lateral view, × 1; d, dry fallen phalange, longitudinal medial section, × 1; e, f, dry fallen phalange, apical view, × 1; g, fully grown but green phalange, apical view, × 1; h, carpel apex and stigma, apical view, × 4; i, carpel apex and stigma, lateral view, × 4; j, carpel apex and stigma, apical view, × 4; k, leaf base, lower side, × 1; l, leaf middle, lower side, × 1; m, leaf apex, lower side, × 1.
Fig. 245.A. *Pandanus mayotteensis* St. John, from St. John 26,548. *Top left*, staminate inflorescence, \( \times \frac{1}{4} \); *top right*, staminal fascicle, \( \times 10 \). *Bottom left to right*, leaf apex, lower side, \( \times 1 \); leaf middle, lower side, \( \times 1 \); leaf base, lower side, \( \times 1 \).
had chewed off part of the base), 2.8–4.1 cm wide, 2.2–3.2 cm thick (but doubles 5.6 cm wide and with 6 cells), brown, cuneate, 5–6-angled, when mature "red," upper 1/2 free, the sides flat, the apex low convex (or semi-orbicular), smooth, shining, when almost mature with apical central sinus short, separate, 0.5–2 mm deep, but when fully mature with the sinuses confluent and 5–6 mm deep; carpels 2–6; stigmas 4–9 mm wide, cordate to oblate reniform, brown, papilllose, centripetal, on the green phalanges horizontal and flush, but on the dried fallen ones oblique and salient; endocarp supramedian, brown, bony, the lateral walls 1 mm thick, smooth and shiny within, with lateral shoulders; apical mesocarp with heavy fibers and continous pith; basal mesocarp fibrous and fleshy.

**Staminate plant (St. John 26,548):** Tree 7 m tall, 10 cm in diameter, bark brown, with short conic spines; branchlets 3 cm in diameter; prop roots few, 1 m long, 4 cm in diameter; leaves 1.5 m long, 5.8 cm wide, similar to those of the pistillate trees except at midsection with 41 parallel secondary veins in each half, and there the margins with subulate-serrae 1.2–1.5 mm long, 3–6 cm apart; subulate apex 5 cm long and at base 4 mm wide; staminate inflorescence 50 cm long, pendent; peduncle 10 cm long, fleshy; bracts mostly white, the lowest floral one at base for 20 cm lance-elliptic, dilated, papyraceous, white, 6 cm wide, the apex 60 cm long, 4 cm wide, sword-shaped, coriaceous, green, with the margins and midrib below serrate; median bract 11.5 cm long, 5 cm wide, oblong-elliptic, white, papyraceous, the margins and midrib below fimbriate, the teeth subulate, 0.5–1 mm long, crowded; spikes about 13 and 5–12 cm long, 2 cm in diameter, dense; fascicles dense, 6–9 mm long, with 5–7 stamens; column 5–6 mm long, umbellate; free filament tips 2.5–4 mm long, anthers 2.3–3 mm long, narrowly oblong, bearing a subulate projection of the connective 0.15–0.2 mm long.

**Holotypus:** Iles Comores, Ile Mayotte, 5 km SW of Mamoutzou, in forest along stream, 10 m alt, Aug. 19, 1961, H. St. John 26,549 (BISH).

**Fig. 246.** *Pandanus mayotteensis* St. John, from holotype. Left, tree habit; right, leafy branch with fruiting syncarp.
specimens examined: Iles Comores, Ile Mayotte, poussant spontanément en groupes peu éloignés au bord des rivières, marais, généralement près de la mer dans des endroits humides, 21 août 1961, l. Ramadan (bISH) ; Ile Mayotte, Chiconi, Batrini, one tree left in coconut plantation, 8 m alt, Aug. 18, 1961, H. St. John 26,548 (bISH) ; Mayotte, 1847–1852, Boivin (p).

Discussion: P. mayottensis is a member of the section Vinsonia, as is its closest relative, P. heterocarpus Balf. f., of Rodriguez Island, a species with the phalanges 4–5 cm long, 3–4 cm wide, the apex dark green or purple and often with a red border at base; stigmas 3–4 mm wide; bark of trunk warty spiny; and the teeth of the leaf margins orange or red. P. mayottensis has the phalanges 5.3–5.7 cm long, 3.7–5.5 cm wide, red; stigmas 4–9 mm wide; bark of trunk fairly smooth; and the teeth of the leaf margins white with slight brown tips.

The new epithet is formed from the name of the island Mayotte, with -ensis, the Latin adjectival place ending.