

agrees well with the original plate of *Saguaster minor*, reproduced here for comparison (Fig. 113). Although *Drymophlæus olivæformis* has been variously interpreted, it is with little hesitation that the name is used for plants from Amboina now cultivated in this hemisphere. The same conclusion was reached by Merrill (An Interpretation of Rumphius's Herbarium Amboinense, 120, 1917) for the earlier collections of Robinson cited above.

As a cultivated plant, *Drymophlæus olivæformis* is an attractive subject for frost-free areas. It is a shade-loving palm and under proper conditions develops a handsome crown of glossy dark-green leaves with leathery "fish-tail" pinnæ. The slender straight brown stem and lighter green crownshaft contrast with the greenish-yellow spadix bearing bright lacquered fruit at maturity. Trees from which seed was originally obtained were said to be 20 feet high. In the garden of Mr. and Mrs. Langlois, a specimen fruited when only 8 feet high but has now reached considerably larger proportions.

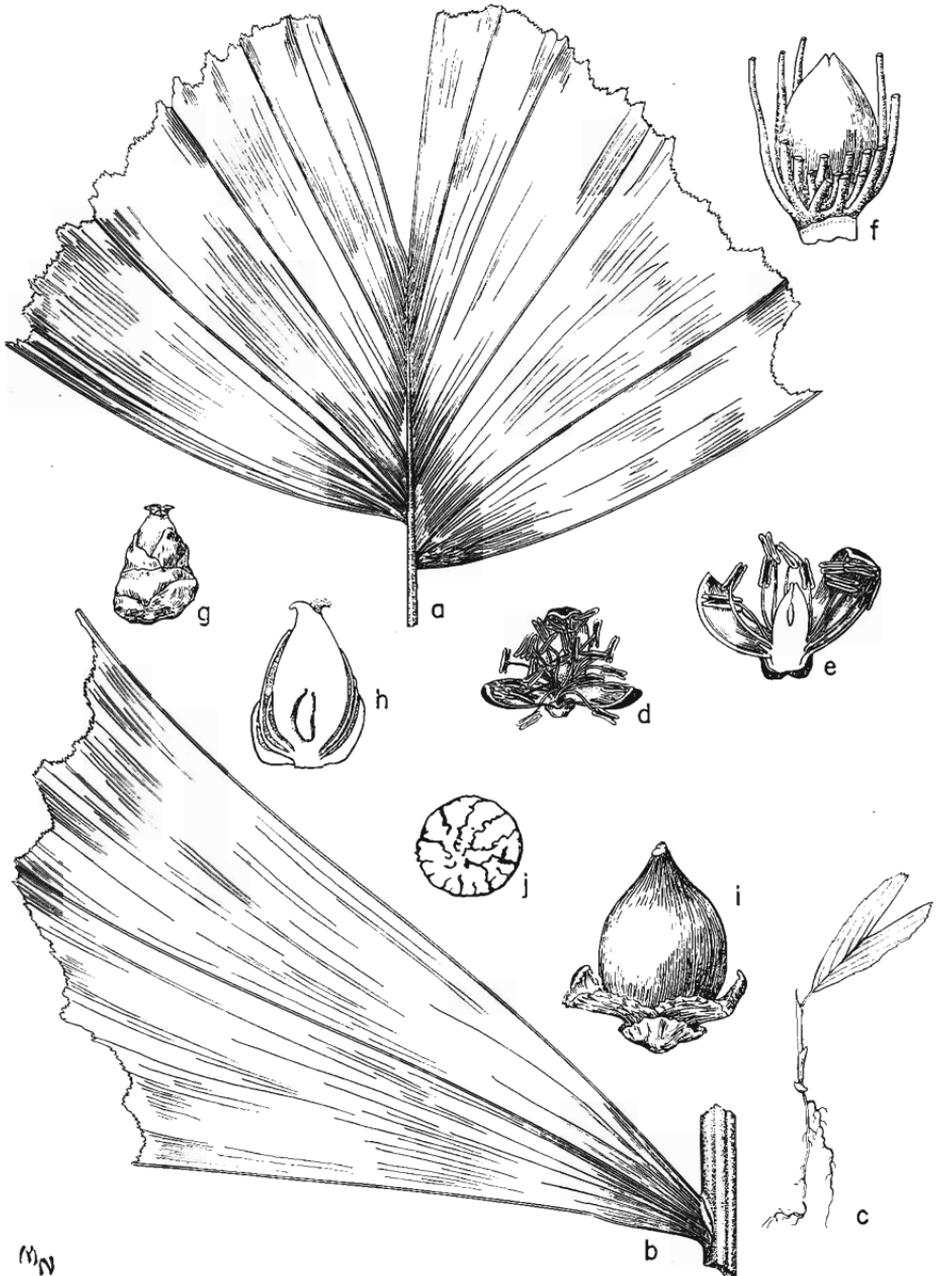
A completely different palm, grown in this hemisphere under the name *Balaka Seemanii*, has also been determined as *Drymophlæus olivæformis*. Examination of the fruit shows this palm to be a species of *Ptychosperma* as yet undetermined but readily distinguished from both *Drymophlæus* and *Balaka* by the sulcate seed, lack of persistent spathes and much narrower pinnæ.

† 2. *Drymophlæus Beguinii*, (Burret) trans. nov. Figs. 114, 115.

Coleospadix Beguinii, Burret, in Fedde, Repert. xxiv, 286 (1928).

Straight hard-stemmed palm 3-5 m. high, ca. 5 cm. in diameter with about 6 leaves and sometimes epigeous roots: leaves more or less erect; sheath ca. 50 cm. long, densely white-floccose with basifixed lacinate twisted castaneous scales outside, smooth, shining and orange within when dry; petiole 25 cm. long, densely and minutely dark-punctate, nearly terete with shallow groove above; rachis ca. 1.4 m. long, convex below, bifacial above with deciduous scales, becoming densely and minutely dark-punctate; pinnæ dark green, shining, glabrous except the minutely dark-punctate prominent mid- and marginal nerves, 11-13 on each side of the rachis, alternate, borne at nearly 90° angle with the rachis, broadly cuneate in outline, erose-dentate at apex with the upper margin produced, 2-2.5 cm. long at insertion on the rachis, the lowermost 14-30 cm. long; 5-7.5 cm. wide at the apex, the median 32-40 cm. long, 16-25 cm. wide, the apical 16-19 cm. long, 14-19 cm. wide and separated to the awned tip of the rachis: spadix pendulous, once to twice-branched, about 60 cm. long; spathes 3, the outer deciduous, ancipitous, 25 cm. long, 2.5 cm. wide, splitting on one side, densely deciduous white-tomentose, with scales similar to those of the sheath, the second persistent, nearly equalling the rachis, similar to the outer but not ancipitous and with more numerous scales becoming more or less glabrate and dark-punctate in age, the inner incomplete, truncate, not exceeding the peduncle; peduncle 15-27 cm.

long, rachis glabrous, ca. 45 cm. long, rachillæ 13-16, to 30 cm. long, glabrous, the lower stout and branched with as many as 7 secondary branchlets, the upper simple: staminate flowers reddish, sepals 1.5 mm.



114. *DRYMOPHLOEUS BEGUINII* (Fairchild Tropical Garden Expedition 402, Langlois). a, apical pinnæ $\times \frac{1}{3}$; b, median pinnæ $\times \frac{1}{3}$; c, seedling leaf $\times \frac{1}{3}$; d, staminate flower $\times 2$; e, staminate flower longitudinal section $\times 3$; f, pistillode $\times 8$; g, pistillate flower $\times 2$; h, pistillate flower longitudinal section $\times 3$; i, fruit $\times 2$; j, seed cross-section $\times 2$.

high, broadly rounded and imbricate, petals 5 mm. high, valvate, cymbiform, stamens about 24, equalling or slightly exceeding the petals with subulate filaments and sagittate bifid-tipped linear anthers, pistillode ovoid, 2 mm. high, briefly trifid at the apex with a central cavity; pistillate flowers subglobose, sepals imbricate, 2 mm. high, the margins minutely denticulate, petals imbricate with shortly valvate deltoid apex, 5 mm. high, staminodes about 3, scale-like, ovary 5 mm. high, ovoid, stigmas 3, recurved, the fruiting perianth spreading, reddish-brown with sepals 3 mm. long, petals 7 mm. long: fruit red at maturity, ovoid, stipitate and rostrate within the cupule with apical stigmatic scar, 14-15 mm. long, 8-9 mm. wide, exocarp thin, mesocarp fleshy with numerous soft longitudinal fibers, endocarp membranous, adherent to the seed; seed 8-9 mm. long, 6-8 mm. wide, with deeply ruminant endosperm and basal embryo, raphe branched from the base: seedling leaf bifid, the lobes simple and toothed along the margin.

Molucca Islands, Dutch East Indies: Halmahera Island; Weda, February 1, 1923, *Beguin 2347* (BO, lectotype)³; Dagoaeli Island, North



115. *DRYMOPLÆUS BEGUINII* (*Fairchild Tropical Garden Expedition 402, Curran*).
Portions of leaf, flowering and unopened spadices, leaf-sheath, fruiting spadix.

Loloda Group, June 7, 1940, *Hugo Curran, Fairchild Tropical Garden Expedition 402* (seed and photograph only), specimens from trees cultivated at The Kampong, Coconut Grove, Florida, 1949, *David Fairchild* (BH) and in Nassau, New Providence, Bahama Islands at Prospect Hill by Mrs. Anne Archbold, 1950, *A. C. Langlois* (BH) and The Retreat by Mr. & Mrs. A. C. Langlois, February 1952, *Moore 6034* (BH).

The trees from which seed was introduced as *Fairchild Tropical Garden Expedition 402* were found on Dagoaseli Island, one of the small islands west of Halmahera. Foliage and spadices were photographed at the time of collection (Fig. 115) but the specimens are no longer extant. Trees have flowered and fruited in the Bahama Islands and in Florida. Comparison of specimens and observations from living trees leads me to identify the cultivated plants as *Drymophlæus Bequinii*.

The two species of *Drymophlæus* in the Moluccas were distinguished by Burret primarily on characters of the pinnæ. In *D. Bequinii*, known by the local name "Pesem", the pinnæ are relatively short and broad with curved margins, the apical pair tends to be broader and stands at nearly right angles to the rachis; in *D. porrectus*, the pinnæ are long and narrow with nearly straight margins and the apical pair is borne at an angle of about forty-five degrees with the rachis. The rachillæ of *D. Bequinii* are shorter and stouter than those of *D. porrectus*. Fruit of the former was described as red at maturity while that of the latter was said to be greenish-gold.

Although the pinnæ of cultivated specimens tend to be somewhat longer and broader than the pinnæ of isotype specimens of *D. Bequinii*, they agree remarkably well in general proportion. In no case have pinnæ as long and narrow as those of *D. porrectus* been seen. Rachillæ and fruit of cultivated material also agrees with the isotype specimens of *D. Bequinii*.

Trees of *Drymophlæus Bequinii* in cultivation are similar to *D. olivæformis* in aspect but have less leathery pinnæ, darker and harder stems with the leaf-sheaths forming an elongate and poorly marked crownshaft above the spadices. The spadices vary somewhat and in cultivation are often less strongly branched than those photographed from the wild. The slender rachillæ and seed with ruminant endosperm, however, contrast with the stouter rachillæ and seed with homogeneous endosperm of *D. olivæformis*.

† *Drymophlæus porrectus*, (Burret) trans. nov. Fig. 116.

Coleospadix porrectus, Burret, in Fedde, Repert. xxiv, 287 (1928).

³ As previously noted, the holotypes of both *Drymophlæus Bequinii* and *D. porrectus* were destroyed in the loss of the Berlin herbarium during the war. Since isotypes of both species are in the Herbarium Bogoriense it seems proper to designate them as lectotypes. Similarly the isotypes of *Siphokentia Bequinii* (*Bequin 1995*), type of the genus and *S. pachypus* (*Bequin 2349*) discussed on page 310, are designated as lectotypes. Photographs of the lectotypes are on deposit at the Bailey Hortorium.