

almost truncate and later split irregularly as in *L. malajana*, a species which appears to have very close affinities with *L. longipes*.

GRIFFITH records that this species is known to Malays as *Palas Batu*, a name recently recorded also by a Malay collector who notes that the leaves are used for thatching house roofs.

14. *Licuala malajana* Becc., Malesia III (1889) 197; Hook. f., Fl. Brit. Ind. VI (1892) 431; Ridl., Mat. II (1907) 161 pro parte; Becc. in Webbia V (1921) 35 et 55; Ridl., Flora V (1925) 26 pp.; Becc. in Calc. Annals XIII (1933) 196 tt. 14-IV et 87.

MALAY PENINSULA: *Trengganu*, Brang in Tersat, alt. 2,500 ft. (Kiah & Moysey, 33398). *Kemaman*, Kajang at Ulu Bendang, alt. 500 ft. (Corner, 30072 A); *Sungai Nipa* (Corner, 30547).

The following specimens have more hairy calyces, but seem to belong here:

Kelantan, Kuala Krai (Haniff & Nur, 10104). *Pahang*, Bukit Senai (Henderson, 19434). *Selangor*, Pahang Track (Ridley in 1897). *Johore*, Gunong Muntahak, alt. 600 ft. (Nur, 19968).

I have not seen any authentic specimens named by BECCARI and so my identification of the species is based entirely on the description and plates given by BECCARI. The specimens doubtfully cited here come very near to some forms of *L. modesta* which however produces very much shorter spadices bearing flowers in groups of two or three on very prominent, almost pedicelliform tubercles. The typical calyx of *L. malajana* has some resemblance to that of *L. Ridleyana*, but the latter species produces unbranched partial inflorescences.

15. *Licuala mirabilis* Furtado sp. nov. Fig. 6.

A L. Kunstleri, cui peraffinis, spathæ limbo pedicellum axillaris spicæ plerumque valde superante, spathis superne inflatis, spicis (=inflorescentiis partialibus) 2-5 ramulosis haec species sat distincta. Secundum clavem Beccarii analyticam prope L. baculariam ponenda, a qua spadicibus quam petioli valde brevioribus facile distinguitur.

Palma solitaria vel sobolifera, cum caule 1-1.5 m. longo 3-4 m. alta. *Petiolum* circa 1.5 m. longus, vagina fibrosa mox marcescente decidua præditus, in 2/3 partibus basalibus aculeis redundis, inferioribus robustis 4 mm. altis, 1-2 mm. crassis, superioribus obscuris armatus. *Segmenta frondium* 20-27, basin versus valde angustata, fere petiolata, apice 3.5-7 cm. lata, 5-15 mm. profunde dentata, 2-3, raro 4-6, costata; medianum alteris parum majus 3-6

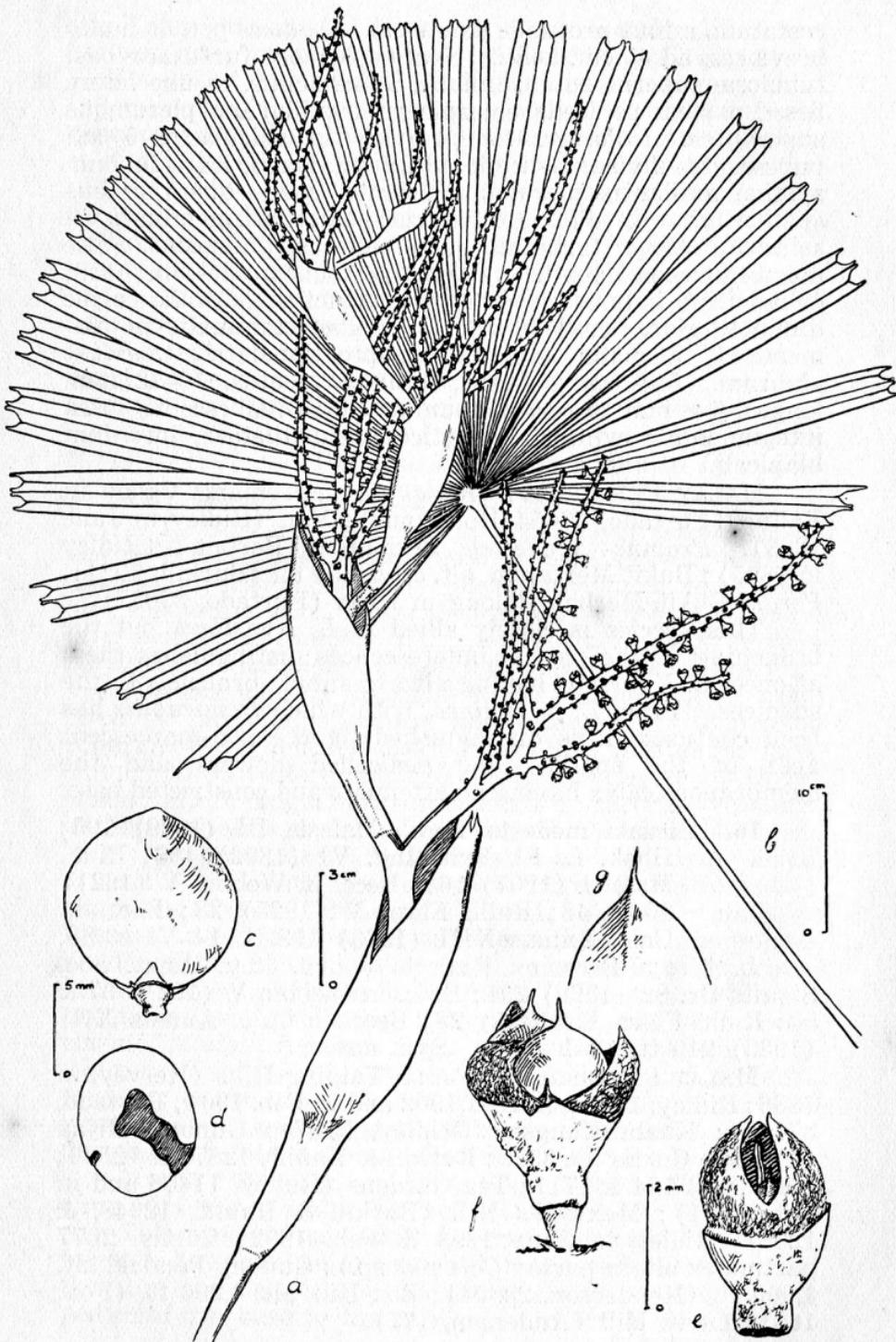


Fig. 6. *Licuala mirabilis* (Holotypus: FURTADO 33054).

a. Pars spadicis floridi. b. Frondis lamina cum parte petioli. c. Fructus. d. Semen verticaliter discissum. e. Alabastrum. f. Pulvinus cum flore dua carpella fertilia exhibente. g. Filamentum staminale.

costatum, minus profunde dentatum. *Spadices* petiolo multo breviores, ad 45 cm. longi. *Spathæ* fugaceo furfuracæ basi tubulosæ superne subito inflatæ, apice acutæ, in uno latere fissæ, partem pedicellarem spicarum axillarium plerumque superantes. *Inflorescentia partialis* in spiculas 2–5 axi pubescentes divisa, pedicello ad 2·5 cm. longo, infra limbum spathæ axillantis plerumque oriente, saepe quam limbus spathæ minore. *Flores* conspicue pedicellati, geminati vel solitarii. *Calyx* turbinato campanulatus, pubescens, apice membranaceus, lobatus vel partim truncatoides, in basin cylindricam induratam abrupte constrictus. *Corolla* calyce duplo longior, dense sericea. *Annulus* staminalis in filaments 6, aequalia superne abrupte subulata. *Ovarium* glabrum. *Fructus* globosus, utrinque acutus, 10–12 mm. longus, 6–8 mm. crassus; albumine carneo, albescenti, fossa integumentale cylindrica, vertice paulo dilatata, interdum biapicali.

MALAY PENINSULA: *Kedah*, Ayer Térjang Valley in Baling. (Furtado, 33054—Holotypus); *Yan* (Ridley in June 1893). *Province Wellesley*, Permatang Bertam? (Ridley in 1895); *Bukit Mertajam*, alt. circa 450 m. (Burkill, 9021). *Perak*, *Bukit Merbau Balong* in *Kroh* (Furtado, 33037).

This species is closely allied to *L. Kunstleri*, but the branching of the partial inflorescences distinguishes them at once, *L. Kunstleri* having always simple branches to the spadices. From *L. ferruginea*, with which *L. mirabilis* has been confused, it is distinguished by the non-marcescent apex of the spathes, the pedicelled flowers and the membranous calyx having an attenuate and constricted base.

16. *Licuala modesta* Becc., Malesia III (1889) 195;
Hook. f., Fl. Brit. Ind. VI (1892) 433; Ridl.,
Mat. II (1907) 163; Becc. in *Webbia V* (1921)
 35 et 48; Ridl., Flora V (1925) 28; Becc. in
Calc. Annals XIII (1933) 198 tt. 14–VI et 88.

L. Wrayi Becc. ex Ridl. in Journ. Roy. Asiat. Soc. Straits Br. 82 (1920) 201; Becc. in *Webbia V* (1921) 37 & 50; Ridl., Flora V (1925) 28; Becc. in *Calc. Annals XIII* (1933) 210 tt. 13–I et 46. *Syn. nov.*

MALAY PENINSULA: *Perak*, Taiping Hills (Hervey, in 1889; Ridley, 14721, in Dec. 1902 and in Feb. 1904; Furtado, 37103); *Kuala Kangsar* (Ridley, 3167); *Gunong Hijau* (Fox sub Curtis no. 3529; Burkill & Haniff, 12873 & 12589; Anderson, 164 & 171); *Tea Gardens* (Ridley, 11406 and in Feb. 1891); *Maxwell's Hill* (Burkill & Haniff, 12948, & 12551; Ridley in June 1893 & Feb. 1892; Curtis, 2077 partim, ex altera parte=*Calamus* sp.); *Gunong Pondok*, alt. 1,000 ft. (Henderson, 23804); *Box Hill*, alt. 4,200 ft, (Fox, 163); *Larut Hill* (Anderson, 177).