

## 5. Systematic Notes

## A. LIBERICULA Furtado.

*Licuala peltata* Roxb., Fl. Ind. II (1824) 179; Griff. in Calc. Journ. Nat. Hist. V (1845) 324, et Palms Brit. Ind. (1850) 120 t. 222; Hook. f., Fl. Brit. Ind. VI (1892) 430; Becc. in Webbia V (1921) 24 et 39, et in Calc. Annals XIII (1933) 131 t. 74.

MALAY PENINSULA: *Lower Siam*, Kantang (Haniff & Nur, 4720).

*Distribution*: In the monsoon forests of North East India, Burma, Andamans and Nicobars.

This species was not recorded previously in the Peninsula, where it occurs only in the northern-most parts which form the southern-most range of the distribution of the species. In cultivation it is grown in many gardens throughout the Peninsula. The species sometimes begins to flower before its leaves have started to divide into segments.

B. EU-LICUALA § *Wurmbia* Furtado.

1. *Licuala acutifida* Mart., Hist. Nat. Palm. III, ed. 1 (1842) 237, t. 135 III et IV; Griff. in Calc. Journ. Nat. Hist. V (1845) 237 et Palms Brit. Ind. (1850) 122 t. 222 A et B; Mart. op. cit. III, ed. 2 (1849) 236 et (1850) 318; Hook. f., Fl. Brit. Ind. VI (1892) 433; Ridl., Mat. II (1907) 163 pp.; Becc. in Webbia V (1921) 30 et 44; Ridl., Flora V (1925) 27 pp.; Becc. in Calc. Annals XIII (1933) 168.

MALAY PENINSULA: *Penang*, Tulloh Bahang (Curtis, 1010); Government Hill (Ridley and Curtis, 7906); Waterfall (Curtis in June 1890); Penang Hill (Ridley in July 1898).

This species is very near to *L. Kunstleri* and so far not known from outside Penang. RIDLEY referred here some specimens of *L. pusilla* Becc. LOBB 280 cited by BECCARI as from Singapore may have come from Penang, for LOBB frequently gave incorrect localities to his plants, and there are reasons to believe that the majority of the Malayan plants collected by LOBB were from Penang (*vide*, BURKILL, in *Gard. Bull. Straits Settl.* IV, 1927 p. 127).

CURTIS notes on his specimen numbered 1010 that this is not the palm that supplies the walking sticks known as the "Penang Lawyer".

2. *Licuala confusa* Furtado sp. nov. Fig. 1.

? *L. acutifida* Becc. var. *peninsularis* Becc. in Webbia V (1921) 30 et 44, et in Calc. Annals XIII (1933) 169 t. 10-II. *Syn. nov.*?

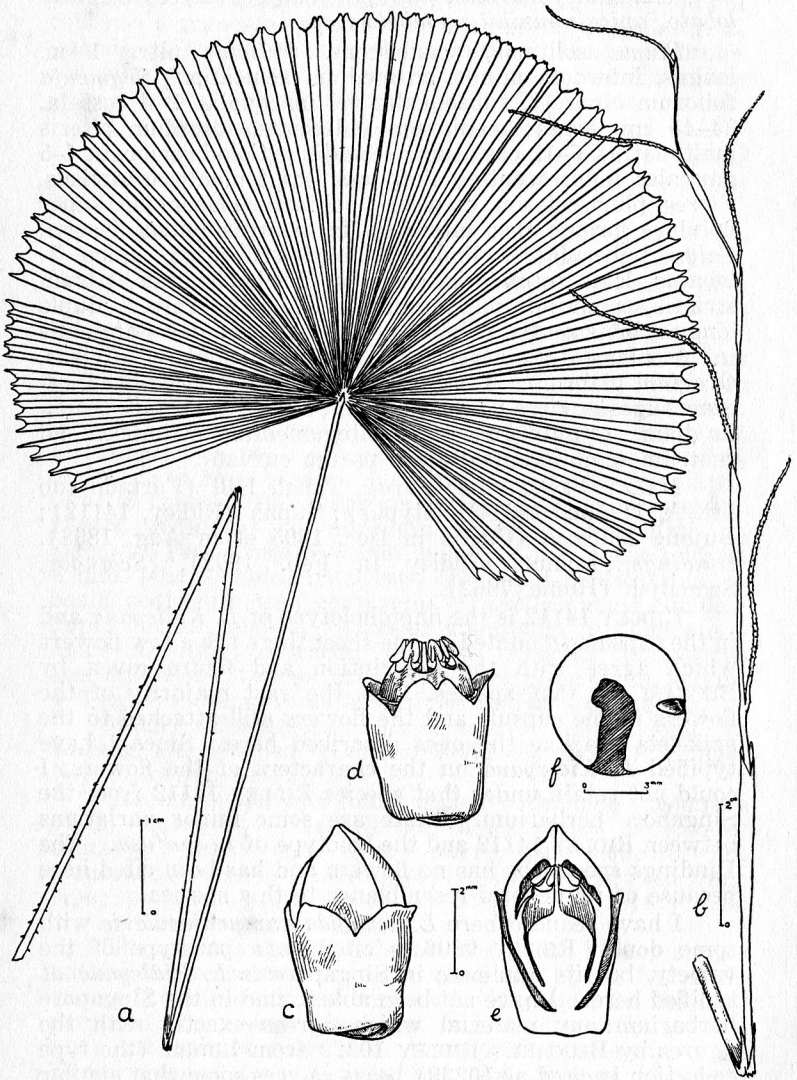


Fig. 1. *Licuala confusa* (Holotypus: FURTADO no. A).

a. Frons. b. Spadix. c. Alabastrum. d. Alabastrum, petala resecta, ut aestivatio staminum appareat. e. Alabastrum verticaliter discissum. f. Semen verticaliter discissum.

*A. L. Ridleyana*, cui valde affinis, differt calyce conspicue lobato, apice nonnihil membranaceo.

*Palma solitaria*, acaulescens. *Petiolus* ultra 1 m. longus, interdum minor, ad medium aculeatus. *Segmenta foliorum* circa 17, subaequalia vel inaequalia, 2–4 costata, 34–45 cm. longa; medianum indivisum, interdum alteris multo latius, 6–12 costatum. *Spadix* petiolo brevior, in 4–5 partiales inflorescentias simplices, axi tomentosas divisus. *Flores* pluriseriatim dispositi, solitarii, plerumque super pulvinos prominulos interdum in depressionibus inserti. *Calyx* puberulus, cylindricus, basi truncatus, apice 3-lobatus, lobis rotundatis, saepe in 2 lobulos fissis, parum striatis, nonnihil membranaceis. *Corolla* calyce duplo longior, lobis acutis, puberulis vel non. *Annulus staminalis* in 6 filamenta antherifera abrupte subulata divisus. *Ovarium* glabrum. *Fructus* vivo rubrus, in sicco brunnescens, rugosus, circa 8 mm. in diam.; semen orbiculare 5 mm. in diam., gramineum, fossa integumentale cylindrica, ad centrum seminis cursa, apice parum curvata.

MALAY PENINSULA: *Perak*, Tapah Hill (Furtado sub litt. A, 11 June 1937–Holotypus); Tapah (Ridley, 14112); Bujong Malacca (Curtis in Dec. 1895 et in Aug. 1898). *Dindings*, Lumut (Ridley in Feb. 1892). *Selangor*, Semenyih (Hume, 7962).

RIDLEY 14112 is the haptoholotype of *L. Ridleyana* and in the capsules mounted on the sheet there are a few flowers which agree with the description and figure given by BECCARI for that species. But the vast majority of the flowers in the capsule and the flowers still attached to the spikelets are like the ones described here. Since I have typified *L. Ridleyana* on the characters of the flowers, I could not retain under that species RIDLEY 14112 from the Singapore herbarium. There are some minor variations between RIDLEY 14112 and the holotype of *L. confusa*. The Dindings specimens has no flowers and has been cited here because of its general resemblance to this species.

I have reduced here *L. acutifida* var *peninsularis* with some doubt. RIDLEY 9806 is cited as a paratype of the variety, but its duplicate in Singapore is *L. Ridleyana* as typified here. I have not been able to find in the Singapore herbarium any material which agrees exactly with the figures by BECCARI. RIDLEY 10329 from Lumut (the type collection is cited as 10239) bears calyces somewhat similar to the ones figured by BECCARI, but the partial inflorescences are branched in the Singapore specimen and the corolla is hairy. It seems to represent a variety of *L. spinosa*, typical material of which species is also mounted on the same sheet.

*L. confusa* has manifest affinities with *L. Ridleyana* but this has a truncate calyx which later splits irregularly. *L. pahangensis*, also an ally of *L. confusa*, has a glabrous, conspicuously striate calyx which bears a somewhat caudiculate base and less symmetrical lobes at the apex.

3. *Licuala Corneri* Furtado sp. nov. Fig. 2.

*L. Kunstleri proxima*, a qua calycibus basin versus pedicelliformiter longe productis truncatis, obscure denticulatis, sat distincta.

*Palma* solitaria ut videtur, cum caule 0.60–2 m. longo, 2–4 m. alta. *Petiolus* 35–100 cm. longus, prope basin tantum aculeatus, in medio circa 6–8 mm. et apice 4 mm. latus. *Segmenta* frondium subaequalia, circa 12–14, cuneatissima, 2–3, raro 1–4, costata, 25–35 cm. longa, apice 3–4.5 cm. lata; mediana alteris latiora, apice dentibus brevissimis. *Spadices* compositi, 35–80 cm. longi, in dimidia parte basali haud ramosi, cum 2–3 spathis involuti, in altera parte terminali in ramos simplices, florigeros, plerumque 3–4, ad 15 cm. usque longos, dense pubescentes, divisi. *Spathae* basales bicarinatae, alterae tubulares, punctis fugaceo fusco-leprosis tectae, apice marcescentes. *Flores* geminati vel interdum solitarii, pedicellati, in alabastro fusiformes, 5–8 mm. longi. *Calyx* dense pilosus, 4 mm. longus, apice truncatus, obscure 3-denticulatus, in basin pedicelliformen contractus. *Corolla* calyce cupulari duplo longior, glabra. *Annulus* staminalis in filamenta 6 apice abrupte contracta, divisus. *Fructus* immaturus tantum visus, ellipticus, utrinque acutus, circa 6 mm. longus, 4–5 mm. in diam., fossa albuminali indivisa, cylindrica.

MALAY PENINSULA: *Kemaman*, Ulu Bendong in Kajang, alt. 500 ped. (Corner, 30072–Holotypus); Sungai Nipa (Corner, s.n.).

CORNER 30072 was found mixed with some specimens of *L. malajana*. The collector notes: palm is slender solitary; leaflets dark green above, pale beneath, not glaucous; flowers greenish white; fruit fall orange-red when ripe; perianth green; staminal tube white; ovary pale orange; inflorescence hanging”.

Though this species falls into the group having simple partial inflorescences, it has no close ally in the Peninsula except the one described here as *L. Moyseyi*. In the long pedicelliform base of the calyx and its obscurely toothed apex the species may seem to appear very near to *L. Beccariana* of New Guinea but that species has been described to have very much longer flowers borne on simple and shorter spadices and belongs to the section DAMMERA.

4. *Licuala ferruginea* Becc. in Hook. f., Fl. Brit. Ind. VI (1892) 432; Ridl., Mat. II (1907) 162; Becc.