



Notes on the *Lecythidaceae* of Peninsular Malaysia

G.T. Prance¹

Key words

Abdulmajidia
Barringtonia
Malaysia
new species

Abstract In preparation for the account of *Lecythidaceae* for the Flora of Peninsular Malaysia some changes involving new names are needed. The genus *Abdulmajidia* is reduced to synonymy with *Barringtonia* and the necessary new combinations are made. Three new species of *Barringtonia* from Malaysia are described, *B. badia*, *B. glomerata* and *B. norshamii*.

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INTRODUCTION

During the course of the preparation of the treatment of the *Lecythidaceae* for the Flora of Peninsular Malaysia three new species were found in the field and herbaria and the status of the genus *Abdulmajidia* was assessed. Since these involve nomenclatural changes, which are not permitted in the Flora, they are presented here.

Abdulmajidia

This genus was described by Whitmore (1974) for two species that differed from other Malaysian species of *Barringtonia* in having more than one seed in the fruit. This was the sole character upon which the genus was based. Recently two more species of *Abdulmajidia* were described by El-Sherif & Latiff (2006) and *Barringtonia rimata* Chantar. was transferred to *Abdulmajidia*. My analysis of these two genera for the Flora found that the species placed in *Abdulmajidia* are very closely related to *Barringtonia macrostachya* (Jack) Kurz and *B. scortechinii* King. Outside of Malaysia several other species of *Barringtonia* sometimes have more than one seed, for example *B. hallieri* Knuth from Borneo, a species also closely related to this complex. These species all seem to fall within the variation of *Barringtonia* and so I will treat *Abdulmajidia* as a synonym of *Barringtonia* in the Flora and the necessary new combinations are made here.

1. *Barringtonia chaniana* (Whitmore) Prance, *comb. nov.*

Abdulmajidia chaniana Whitmore, Kew Bull. 29 (1974) 209 — Type: Y.C. Chan FRI 17547 (holo KEP), Malaysia, Johore.

2. *Barringtonia latiffiana* (El-Sherif) Prance, *comb. nov.*

Abdulmajidia latiffiana El-Sherif in El-Sherif & Latiff, Folia Malaysiana 7 (2006) 49. — Type: R. Jaman & H. Salleh RJ 2052 (holo UKMB), Malaysia, Kedah.

3. *Barringtonia maxwelliana* (Whitmore) Prance, *comb. nov.*

Abdulmajidia maxwelliana Whitmore, Kew Bull. 29 (1974) 210. — Type: K.M. Kochummen FRI 2898 (holo KEP), Malaysia, Perak.

4. *Barringtonia rimata* Chantar.

Barringtonia rimata Chantar. (1995) 691. — Type: Maxwell 84-37 (holo A; iso PSU, UKMB), Thailand, Songkhla.
Abdulmajidia rimata (Chantar.) El-Sherif & Latiff (2006) 50.

Note — In this case a new combination is not necessary as this species was originally described in *Barringtonia*.

5. *Barringtonia zainudiniana* (El-Sherif & Latiff) Prance, *comb. nov.*

Abdulmajidia zainudiniana El-Sherif & Latiff, Folia Malaysiana 7 (2006) 46. — Type: Y.N. Lo & Mahmud 111 (holo KLU), Malaysia, Kedah.

Note — I was unable to locate the type of this species at KLU. It was based on a single collection and may prove to be a synonym of another *Barringtonia*, but I have transferred it here until it can be properly assessed.

NEW SPECIES OF BARRINGTONIA

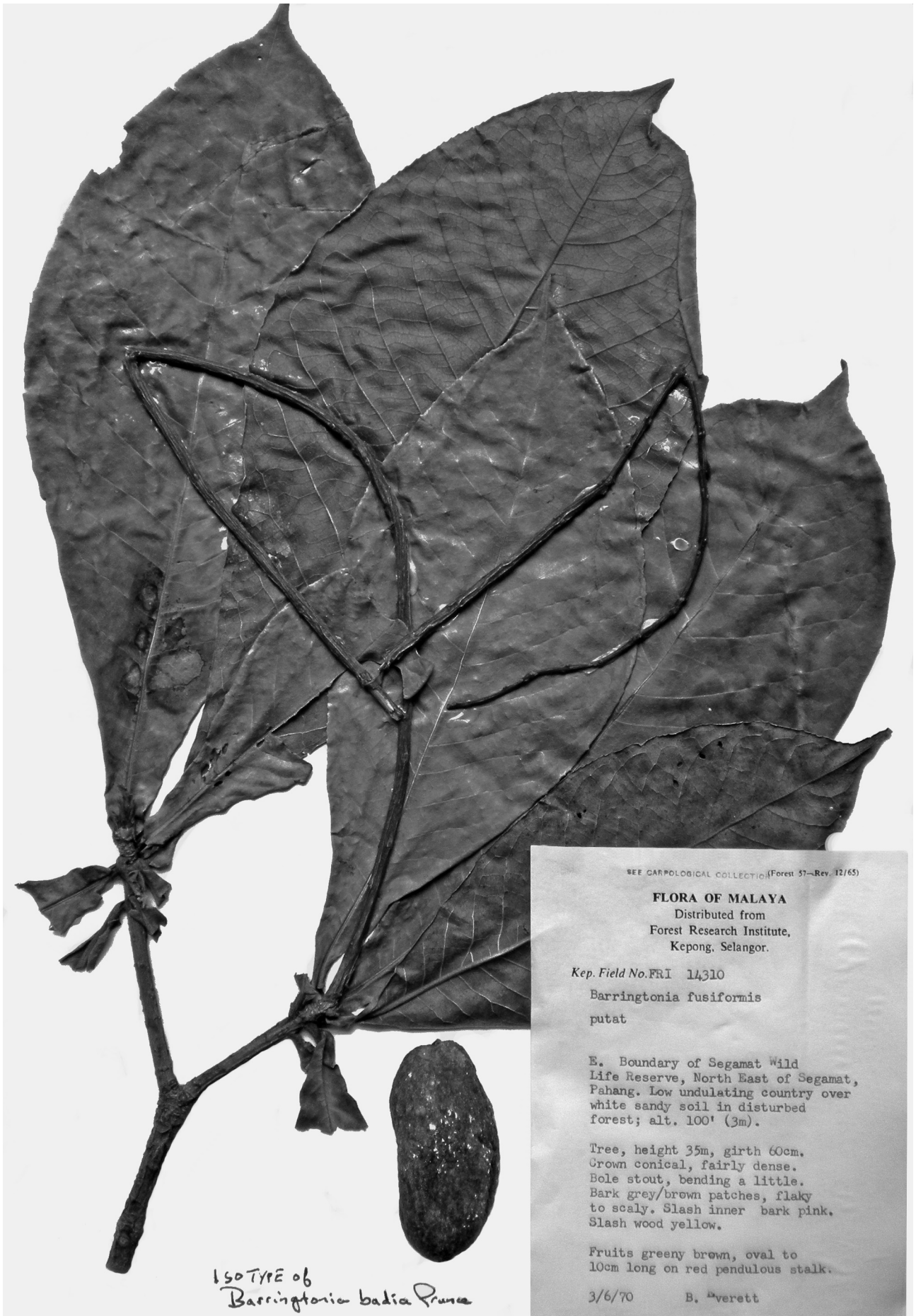
1. *Barringtonia badia* Prance, *sp. nov.* — Fig. 1

Species *B. fusiformis* affinis sed foliis infra hirsutis, spathulatis, in exsiccatis rubris differt. — Typus: B. Everett FRI 14310 (holo KEP; iso K, L), Malaysia, E boundary of Segamat Wildlife Reserve, NE of Segamat, 100 m, 3 June 1970.

Tree to 35 m tall, bark grey/brown patched, smooth, inner bark pink. Leaves clustered at end of branches, lamina subsessile with short petioles 0–8 mm long, obovate-spathulate, broadest well above middle, subcoriaceous, drying reddish brown, 14–28 by 6–13 cm, densely hirsute on venation beneath, tapering sharply towards base, mucronate at apex, the mucro 10–16 mm long; margins serrate-crenulate; midrib prominulous above, prominent beneath; primary veins 16–21 pairs. Cataphylls lanceolate, 8–10 mm long. Inflorescence terminal, pendulous, the rachis to 1 m long, densely ferruginous pubescent. Flowers sessile, small 3–4 mm long; calyx open in bud; hypanthium and sepals densely ferruginous pubescent on exterior; petals ovate, c. 5 mm long; stamens 1.5–2 cm long, in 3 whorls, the inner one staminodal. Fruit ovoid, 7–10 by 3–5 cm, green turning brown with age, exocarp smooth, ferruginous puberulous, rounded or tapering towards apex and base.

Habitat — Collected in disturbed forest and secondary forest at low altitudes on non-flooded ground.

¹ Royal Botanic Gardens, Kew, Richmond, Surrey, TW9 3AB, United Kingdom; corresponding author e-mail: gtolmiep@aol.com



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FLORA OF MALAYA

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Kep. Field No. FRI 14310

Barringtonia fusiformis
putat

E. Boundary of Segamat Wild
Life Reserve, North East of Segamat,
Pahang. Low undulating country over
white sandy soil in disturbed
forest; alt. 100' (3m).

Tree, height 35m, girth 60cm.
Crown conical, fairly dense.
Bole stout, bending a little.
Bark grey/brown patches, flaky
to scaly. Slash inner bark pink.
Slash wood yellow.

Fruits greeny brown, oval to
10cm long on red pendulous stalk.

3/6/70

B. Everett

ISO TYPE of
Barringtonia badia Prance

Fig. 1 Photo of type specimen of *Barringtonia badia* Prance (Everett FRI 14310).

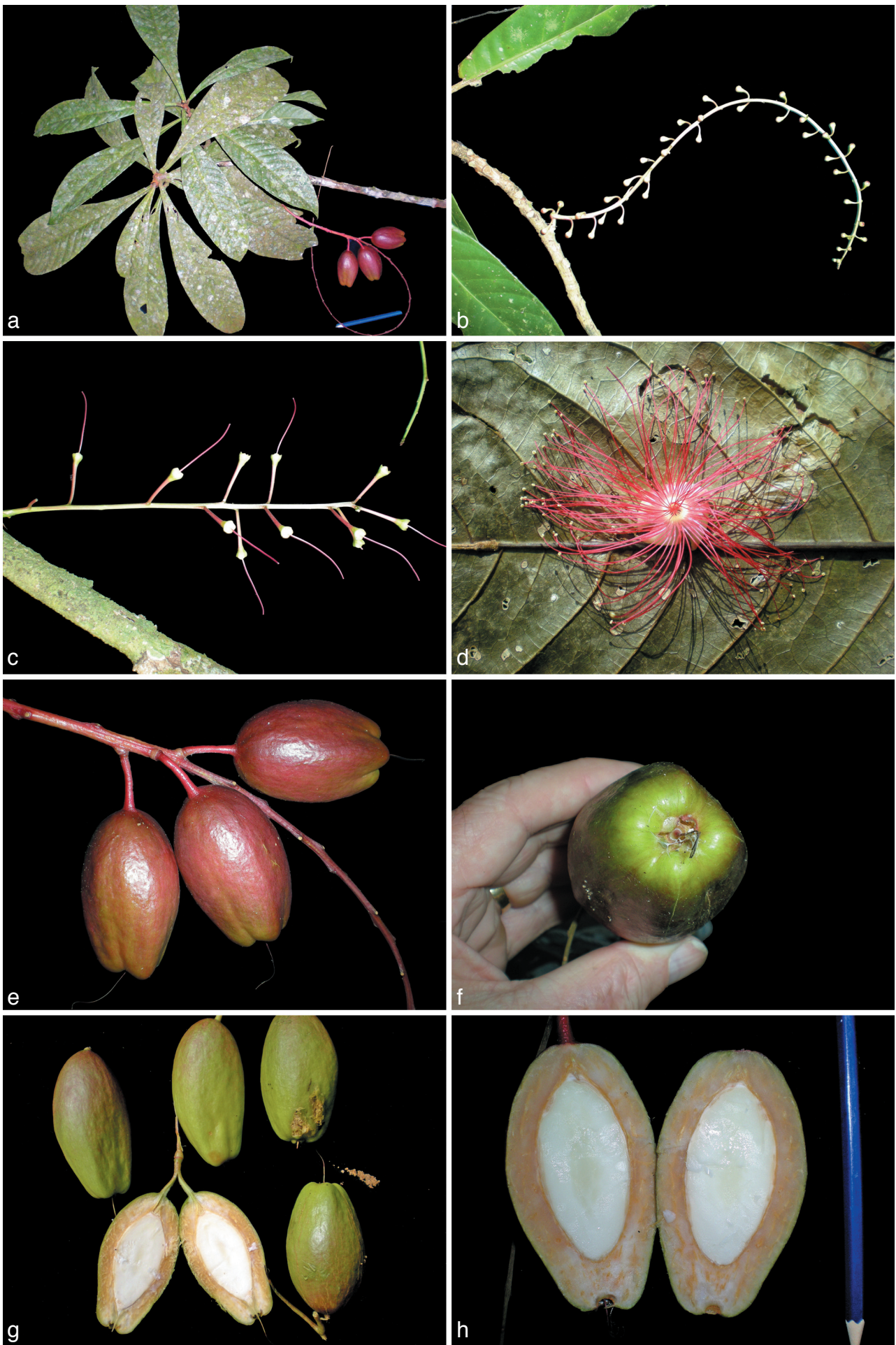


Fig. 2 *Barringtonia norshamiae* Prance. a. Habit; b. inflorescence; c. flowers without stamens; d. fallen stamens; e–h. fruit (a, f–h. Prance et al. 30888; b. Prance et al. 30890; c, d. Prance et al. 30891).

Note — This species is closest to *B. fusiformis* King from which it differs in the hirsute underside of the leaves, the spatulate shape being much broader well above the midpoint, and in the smaller flowers and the broader, larger fruit. The specific name refers to the distinctive reddish brown colour of the leaves of the dried herbarium specimens.

Additional material examined. MALAYSIA, Pahang, E edge of Chini FR, S of Tasek Chini, 500 m, 13 Aug. 1970 (fr), *Everett FRI 14552* (K, KEP); E boundary of Segamat Wildlife Reserve, 3 June 1970 (fl), *Loh Hoy Shing FRI 17150* (K, KEP, L). Terengganu, Gunong Tebu FR, 700 m, 7 July 1969 (fr), *Selvaraj FRI 13028* (K, KEP, L). Johore, Labis FR below Gunong Besar massif, 2 miles E of Kg. Tepoh, 180 m, 18 March 1970 (fl bud), *Everett FRI 14085* (KEP, K, L), same locality and date, *Everett FRI 14093* (K, KEP, L).

2. *Barringtonia glomerata* Prance, *sp. nov.* — Fig. 3

Species *B. macrostachya* affinis sed foliis maioribus, latioribus, mucronatis, floribus ad apicem rachidis glomeratis differt. — Typus: *Md. Haniff SFN 21071* (holo SING; iso K), Malaysia, Kedah-Perak Boundary, Bukit Kuala Bintang, Gunung Bintang, 17 April 1928.

Tree c. 10 m tall, twigs glabrous. *Leaves* grouped towards end of branches, petioles 6–10 cm long, glabrous, swollen at junction with stem; lamina oblong, coriaceous, 30–38 by 11–15 cm, glabrous on both surfaces, abruptly mucronate at apex, the mucro 5–6 mm long, tapering to cuneate base, decurrent for 1.5 cm onto petiole; midrib prominulous above, prominent beneath; primary veins 16–19 pairs, venation reticulate on both surfaces; margins entire and slightly undulate. Cataphylls not seen. *Inflorescence* terminal, the rachis (in bud) 25 cm long, 6–7 mm thick, glabrous, flaking when dry. Flowers grouped at extreme tip of rachis, sessile; bracts broadly ovate with fine mucronate apex, 10 by 13 mm; calyx closed in bud; hypanthium conical, c. 5 mm long, glabrous, slightly tetragonous; sepals broadly ovate, c. 1 cm long, mucronate; stamens in 4 or 5 whorls, the inner one staminodal; filaments c. 4 cm long. *Fruit* unknown.

Habitat — No data on habitat.

Note — This species is closest to *B. macrostachya* but differs in the clustered flowers at the tip of the inflorescence rachis, the broader leaves with entire not crenate margins and the abrupt mucro at the apex rather than a thin long acumen. Known only from the type collection from the Kedah-Perak border.



Fig. 3 Photo of type specimen of *Barringtonia glomerata* Prance (*Haniff SF 20171*).

3. *Barringtonia norshamiae* Prance, *sp. nov.* — Fig. 2

Species *B. racemosa* affinis, floribus parvioris, fructibus maioribus haud tetragonatis, foliis ad basim cuneatis differt. — Typus: *B. Everett FRI 14099* (holo KEP; iso K, L), Malaysia, Johore, S. Segamat, N of Kg. Tepoh, in Gunong Besar Massif, Labis FR, 600 m, 19 March 1970.

Small tree 8–18 m tall; bark brown to grey, thickly fissured, inner bark pink. *Leaves* grouped towards end of branches arranged in storeys, subsessile, petioles 0–5 mm, slightly winged; lamina chartaceous, narrowly oblong, 15–37 by 4–9 cm, glabrous on both surfaces, acuminate at apex, the acumen 8–15 mm long, tapering gradually to a cuneate base, margins serrate-crenulate, slightly revolute; midrib prominulous above, prominent beneath; primary veins 14–24 pairs, prominent beneath. Cataphylls lanceolate, membranous, to 3 cm long. *Inflorescence* terminal or ramiflorous, pendulous, the rachis glabrous. *Flowers* with pedicels 9–17 mm long; calyx open in bud; hypanthium conoid, 2–3 mm, glabrous; sepals ovate, c. 2.5 by 2 mm, glabrous; petals cream; stamens in 4 whorls the inner one staminodal, pink. *Fruit* ovoid, 7.5–8 by 3–4 cm, terete, exocarp smooth, glabrous, green tinted pink when mature, with 4 knob-like protrusions at base.

Habitat — Mixed lowland dipterocarp forest growing near rivers or among rocks, to 750 m.

Note — This species differs from *B. racemosa* (L.) Spreng. in the larger ovoid not angled fruit, the much smaller flowers on long pedicels and the tapered leaf bases. It differs from *B. revoluta* Merr. with which it has been confused, in the smaller flowers, the much thinner chartaceous leaves that are almost sessile and with only slightly revolute margins. The specimens cited here has been variously filed in herbaria under *B. racemosa*, *B. revoluta* and *B. fusiformis* and Payens (1967) identified some of this material as *B. revoluta*. The latter species as defined here occurs only in Borneo and the Philippines, but not in Peninsular Malaysia. This species is named for Norsham Yaakob, a student of *Barringtonia* at the Forest Research Institute Malaysia (FRIM).

Additional material examined. MALAYSIA, Johore, S. Segamat, N of Kg. Tepoh, in Gunong Besar Massif, Labis FR, 600 m, 14 March 1970 (fl, fr), *Everett FRI 14041* (K, KEP, L); 13 March 1970 (fr), *Everett FRI 14021* (K, KEP, L); Labis FR, Bekok, near waterfall, 5 April 1972 (fl), *Kochummen FRI 16508* (K, KEP, L). Pahang, Tembeling, 26 May 1932 (fr), *Henderson SFN 24523* (K, MO, SING); Jenderak Estate, 29 March 1959 (fl), *Kadim & Noor 76* (K, L, SING); Kuala Lompat Game Reserve, 15 April 1967 (fl bud), *Whitmore FRI 3503* (KEP), same locality, 16 April 1967 (st), *Whitmore FRI 352* (KEP, L); Sungai Bantang Recreational Forest, Labis, Bekok, 103°09"E, 2°18" N, 21 June 2008, (fr), *Prance, Yaacob & Velautham 30888* (K, KEP, KLU), *30890* (K, KEP, KLU), *30891* (K, KEP, KLU).

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