

**BARRINGTONIA MAUNWONGYATHIAE (LECYTHIDACEAE):
A NEW SPECIES FROM THAILAND**

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SUMMARY

A new species from the Krabi Province, Thailand, *Barringtonia maunwongyathiae* W. Chuakul, is described and illustrated.

INTRODUCTION

The genus *Barringtonia* J.R. Forst. & G. Forst. described in 1776, is a group of 56 species widely distributed in the tropics from eastern Africa to northern Australia and mainly in Asia (Chantaranothai, 1995; Payens, 1967). Chantaranothai (1995) recognised and reported eleven species for Thailand. During my field survey on medicinal plants in Khuan Thon Forest, Ao Luek District, Krabi Province on April 21, 2000, an interesting new species was found with some different characters from the known species. This species is described here.

***Barringtonia maunwongyathiae* W. Chuakul, *spec. nov.* — Fig. 1–3**

Arbor parva foliis simplicibus spiraliter dispositis obovatis usque ad oblongis vel anguste ellipticis margine serrato-crenulato. Inflorescentia spicata. Flores rosei. Hypanthium infundibuliforme 4-costatum. Sepala quattuor ovata vel triangularia basi connata persistentia. Petala quattuor suborbicularia vel elliptica membranacea concava basi tubi staminum adnata. Stamina verticillis decem usque ad duodecem disposita. Discus annularis. Ovarium ovoideum. Fructus quadrangularis quattuorque costis 5.5–6 × 2.3–2.6 cm. — Typus: *Wong 2953* (holo PBM, iso BK, BKF, Suan Luang Rama IX Herbarium), Thailand, Krabi Prov., Ao Luek Distr., Khuan Thon Forest, 21.4.2000.

Tree up to 8 m high, branches glabrous. *Leaves* simple, spirally arranged, obovate to oblong, or elliptic-oblong, 8–30 by 3–13 cm, chartaceous, base cuneate, margin serrate-crenulate, apex acuminate; secondary veins (8–)13–16 pairs; petiole 1.5–10 cm. *Inflorescence* ramiflorous; spike 10–18 cm long, 26–40-flowered; rachis at the base c. 8 mm, at the apex c. 5 mm in diameter; cataphylls triangular, glabrous, 1–2 by 2–3 mm; bracteoles triangular, 1–1.5 by 1.8–2 mm. *Flowers* dark red. *Hypanthium* funnel-shaped, 4-ribbed, 13–15 mm long, 5–6 mm broad at base and 11–13 mm broad at apex. *Sepals* 4, persistent, ovate or triangular, 9–15 by 8–13 mm, base connate for 1–4 mm, apex obtuse. *Petals* 4, membranous, concave, suborbicular or elliptic,

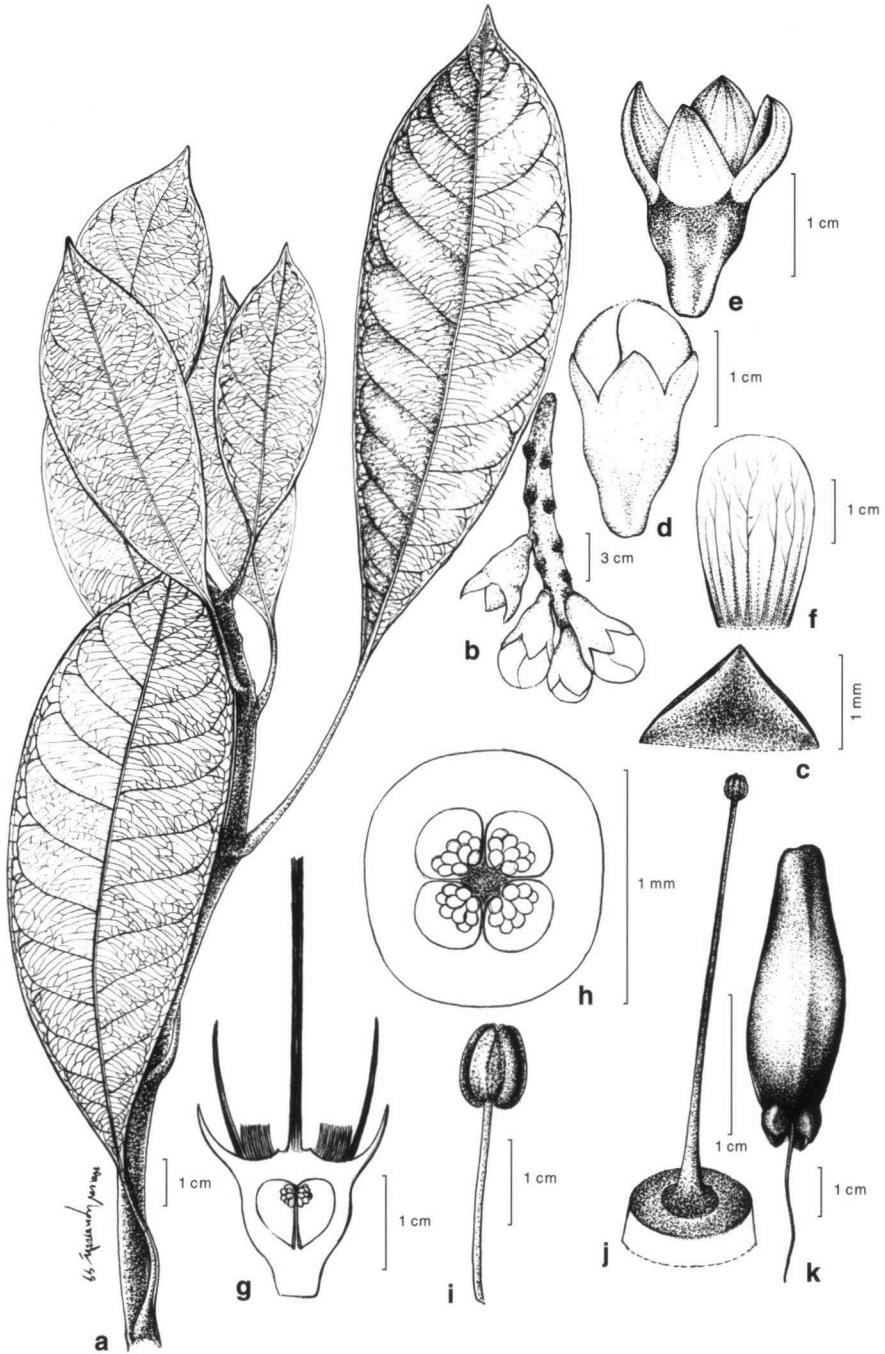


Fig. 1. *Barringtonia maunwongyathiae* W. Chuakul. a. Shoot with leaves; b. inflorescence; c. bracteole; d. flowering bud; e. hypanthium and sepal; f. petal; g. flower (LS) showing hypanthium, stamen and pistil; h. ovary (XS); i. stamen; j. disc, style and stigma; k. fruit (Wong 2953).



Fig. 2. *Barringtonia maunwongyathiae* W. Chuakul. Flower.

24–35 by 16–22 mm, adnate to the base of the staminal tube and falling off together. *Stamens* numerous, in 10–12 whorls, 4–5.5 cm long; staminal tube 3–4 mm long, white; free part of filaments pink; anthers oblong, 0.8–1 by 0.3–0.5 mm; staminodia absent. Disk annular, c. 1 mm high. Style c. 3 cm long, base c. 0.3 mm in diameter, stigma c. 0.5 mm in diameter. *Ovary* ovoid, 4-locular, 3–4 mm long; ovules 14–17 per locule, nearly apically attached. *Fruit* quadrangular, 5.5–6 by 2.3–2.6 cm. *Seed* ovoid, 3 by 2 mm.

Distribution — Thailand, Krabi Province, Ao Luek District.

Habitat & Ecology — Evergreen forest at 150–200 m altitude.

Uses — An aqueous maceration of its stem bark is applied topically to relieve pain and inflammation caused by *Gluta usitata* (Wall.) Ding Hou resin.

Notes — 1. *Barringtonia maunwongyathiae* is closely allied to *B. macrostachya* (Jack) Kurz but differs in its number of flowers per inflorescence, size of rachis, sepal, hypanthium, cataphyll, style, bract, stamen and staminal tube, number of whorls of stamens and ovules per locule and absence of staminodia (Table 1). The new species has more staminal whorls (10–12) than any other species of *Barringtonia* (up to 8). *Barringtonia maunwongyathiae* is the new member to the Section *Stravadium* (Juss.) Miq. *Macrostachya* Group which consists of 4 species, i.e. *B. macrostachya*, *B. pendula* (Griff.) Kurz, *B. lanceolata* (Ridl.) Payens and *B. reticulata* (Blume) Miq. (Payens, 1967). *Barringtonia maunwongyathiae* is stated as the fifth species in this group.

2. *Barringtonia maunwongyathiae* is named for Professor Payow Maunwongyathiae, the first Head of the Department of Pharmaceutical Botany, Faculty of Pharmacy, Mahidol University, who encouraged the author to study plant taxonomy of Thai medicinal plants.

Table 1. Differences between *B. maunwongyathiae* W. Chuakul and *B. macrostachya* (Jack) Kurz.

Character	<i>B. maunwongyathiae</i>	<i>B. macrostachya</i> ¹	<i>B. macrostachya</i> ²
leaf			
shape	oblong to obovate, elliptic-oblong	oblanceolate, obovate	obovate-oblong to oblong
length (cm)	8–30	16.6–35.5	(10–)15–25(–45)
width (cm)	3–13	5–10.5	(4–)6–8(–10)
apex	acuminate	acute	cuspidate, caudate
petiole (cm)	1.5–10	2.8–8.5	2.5–10(–17)
secondary veins (pairs)	(8–)13–16	10–18(–23)	14–18(–21)
flower			
number/inflorescence	26–40	60–80	up to 60 or more
length (cm)	10–18	(10.5–)23–70	(10–)19–45(–75)
rachis diameter (mm)			
at base	c. 8	4–6	up to 10
at apex	c. 5	1.5–2	3–5
cataphyll			
length (mm)	1–2	4.5–7	unreported
width (mm)	2–3	1–2	unreported
bracts			
length (mm)	1–1.5	2–2.5	5–11
width (mm)	1.8–2	1.6–2.5	1.5–3
colour	dark red	pink, pinkish white, reddish to dark maroon	unreported
hypanthium (mm)	13–15	3.2–7	unreported
sepal			
length (mm)	9–15	4–7	3–5
width (mm)	8–13	4.8–7.5	4–6
connation high (mm)	1–4	1–2	1–3
petal			
length (mm)	24–35	(16–)28–30	20–22.5
width (mm)	16–22	11–20	15
stamen			
whorls	10–12	4	4 (or 5)
length (cm)	4–5.5	2.5–3	2.5–3
tube length (mm)	3–4	2.5–3	1.5–3
staminodia	absent	present	present
anther			
length (mm)	0.8–1	9–10	c. 0.75
width (mm)	0.3–0.5	6	c. 0.5
pistil			
disc high (mm)	c. 1	1.4	0.5–1.5
style			
length (cm)	c. 3	5.1–7	4–4.5
diameter (mm)	c. 0.3	1	unreported
stigma diam. (mm)	c. 0.5	0.4	unreported
ovary			
no. ovules/locule	14–17	2–5	2–4(–6)
fruit			
length (cm)	5.5–6	4.5–5.5	5.5–9
width (cm)	2.3–2.6	2–2.7	2–4

1) Chantaranothai, 1995; 2) Payens, 1967.



Fig. 3. *Barringtonia maunwongyathiae* W. Chuakul. Fruit.

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