

## Taxonomic notes on the genus *Premna* L. (Lamiaceae) in Thailand

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### ABSTRACT

The following 10 species in the genus *Premna* (Lamiaceae) are lectotypified: *Premna annulata*, *P. collinsiae*, *P. dubia*, *P. fulva*, *P. garrettii*, *P. paniculata*, *P. quadridentata*, *P. repens*, *P. serrata* and *P. siamensis*. *Premna collinsiae* is reduced to the synonymy of *P. pubescens* and *P. paniculata* is also fully described for the first time following the discovery of complete flowers. Photographs of *P. paniculata* and *P. pubescens* are provided.

KEYWORDS: *Premna*, Lamiaceae, lectotypification, synonymy

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The genus *Premna* L. belonging to Lamiaceae was first described by Linnaeus (1771) on the basis of *P. serratifolia* L. It comprises ca 200 species worldwide which are mainly distributed in tropical and subtropical Asia, Africa, Australia and the Pacific Islands (Harley *et al.*, 2004). A preliminary study of this genus in Thailand was undertaken by Leeratiwong *et al.* (2009), enumerating 23 species and 2 varieties.

In preparation of the *Premna* account for the Flora of Thailand, 10 names need lectotypification: *P. annulata*, *P. collinsiae*, *P. dubia*, *P. fulva*, *P. garrettii*, *P. paniculata*, *P. quadridentata*, *P. repens*, *P. serrata* and *P. siamensis*; in addition a new synonym of *P. pubescens* and a complete description of *P. paniculata* are provided.

***Premna annulata*** H.R.Fletcher, Bull. Misc. Inform. Kew 1938: 199 & 421. 1938. Type: Thailand, Phatthalung, Sak, alt. 50 m, 1 May 1930, *Kerr 19269* (lectotype **BK 257573!**, selected here; isolectotypes **BM 000950178!**, **E 00284175!**, **LL 00375143!**, **K 001052999!**).

***Premna fulva*** Craib, Bull. Misc. Inform. Kew 1911: 442. 1911. Type: Thailand, Chiang Mai, Doi Suthep, alt. ca 700 m, 10 Apr. 1910, *Kerr 1085* (lectotype

**K 001083321!**, selected here; isolectotypes **BM 000019563!**, **K 001083322!**, **TCD!**).

***Premna garrettii*** H.R.Fletcher, Bull. Misc. Inform. Kew 1938: 200. 1938. Type: Thailand, Chiang Rai, Doi Tam Tu Pu, alt. ca 530 m, *Garrett 296* (lectotype **BKF 080132!**, selected here; isolectotypes **BM 000950180!**, **C!**, **E 00284171!**, **K 001083329!**, **K 001083330!**, **SING!**).

***Premna paniculata*** H.R.Fletcher, Bull. Misc. Inform. Kew 1938: 201. 1938. Type: Thailand, Prachuap Khiri Khan (Pak Tawan), alt. ca 20 m, 1 Aug. 1931, *Kerr 20536* (lectotype **BK 257574!**, selected here; isolectotypes **BM 000950181!**, **E 00284177!**, **LL 00375155!**, **K!**, **SING!**). Fig. 1.

Shrub to scandent shrub, 1–2 m tall; stem 4-angled to cylindrical with many lenticels, glabrous. *Leaves* simple, opposite-decussate, elliptic or ovate-elliptic, chartaceous, 2–11 by 1–5 cm, apex acute or acuminate, base cuneate, margins mostly entire or rarely slightly serrate distally; adaxial surface mostly glabrous except with sparse, adpressed, brown pubescent hairs on leaf base and margins; abaxial surface glabrous or sometimes with sparse, adpressed, brown pubescent hairs, with or without sparse brown or yellow peltate glands; secondary veins 4–6-paired;

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petiole 2–5 mm long. *Inflorescence* a corymbose thyrse, 0.7–2 cm long; peduncle 1–3 mm long. *Calyx* campanulate, 2–2.5 mm long, 2-lipped, equally long, with sparsely pubescent hairs, with yellow peltate glands outside, glabrous with peltate glands inside; tube 1.5–2 mm long; posterior lip 3-lobed, lobes triangle-ovate, 0.3–0.6 by 0.3–0.5 mm, apex obtuse or acute; anterior lip 2-lobed, lobes ovate, 0.4–0.8 by 0.4–0.6 mm, apex obtuse or rounded. *Corolla* greenish-white or white, 2-lipped, 3–5 mm long; tube 2–3 mm long, glabrous outside, with moderately, white villous hairs distally inside; posterior lip broadly obovate, 1.2–1.5 by 1.7–2 mm, apex emarginate; anterior lip with middle lobe obovate, 1–1.5 by 1.2–1.5 mm, lateral lobes ovate, 1–1.2 by 1–1.5 mm; lobes glabrous. *Stamens* 4, didynamous, exserted; long filaments 1.2–1.5 mm long; short filaments 1–1.2 mm long; anthers brown, broadly elliptic, 0.2–0.4 mm long, opening by long longitudinal slit. *Ovary* superior, 2-carpellate, 4-locular with 1 ovule per locule, obovoid or subglobose, 0.8–1.2 mm long, glabrous with or without sparse, peltate glands at apex; style 1.3–1.5 mm long; stylar branches 2, 0.1–0.3 mm long. *Fruits* drupaceous, subglobose or obovoid, 4–6 mm long, glabrous with sparse, peltate glands at apex, ripening black; persistent calyx 2–3 mm long. Seeds 1–4, bean-shaped, exalbuminous.

Note.—*Premna paniculata* was described by Fletcher (1938), but the description of the species was not complete because of a lack of corolla characters. During fieldwork in Kaeng Krachan National Park in Phetchaburi province between March and April 2016, complete flowers of this species were found and, therefore, a full description is presented here for the first time. The species is endemic to the south-western region of Thailand, especially in Prachuap Khiri Khan and Phetchaburi provinces.

***Premna pubescens*** Blume, Bijdr. Fl. Ned. Ind.: 816. 1826. Type: Indonesia, Java, *Blume s.n.* (holotype **L**).

—*Premna collinsiae* Craib, Bull. Misc. Inform. Kew 1914: 283. 1914, as '*collinsiae*'. Type: Thailand, Chonburi, Sriracha, 9 Jan. 1913. *Collins 109* (lectotype **K** 001084805!, selected here; isolectotypes **K** 001084804!, **LL** 00208584!), **synon. nov.**

—*Premna dubia* Craib, Bull. Misc. Inform. Kew 1914: 283. 1914. Type: Thailand, Lampang, alt. 250 m, 30 Apr. 1912, *Kerr 2562* (lectotype **K** 001083308!,

selected here; isolectotypes **BM** 000950179!, **K** 001083307!, **LL** 00208581!, **P** 00689513!, **TCD!**). Fig. 2.

Notes.—Examination of the type specimens and the descriptions of *Premna collinsiae* and *P. pubescens* reveals them to be conspecific and, therefore, *P. collinsiae* is treated here as a synonym of *P. pubescens*. This species is widespread in India, Bangladesh, Myanmar, Thailand, Laos, Vietnam, the Malay Peninsula, Indonesia and Australia. In Thailand, it can be found in most floristic regions, except in the peninsula.

***Premna repens*** H.R.Fletcher, Bull. Misc. Inform. Kew 1938: 202. 1938. Type: Thailand, Prachuap Khiri Khan, Sam Roi Yot National Park, 12 July 1924, *Kerr 10950* (lectotype **BK** 257576!, selected here; isolectotypes **BM** 000617361!, **E** 00284230!).

***Premna serrata*** H.R.Fletcher, Bull. Misc. Inform. Kew 1938: 202. 1938. Type: Thailand, Tak, Umphang, Khao Hua Mot, alt. ca 900 m, 12 June 1922, *Kerr 6122* (lectotype **BK** 257577!, selected here; isotypes **BM** 000617343!, **E** 00284179!).

***Premna siamensis*** H.R.Fletcher, Bull. Misc. Inform. Kew 1938: 203. 1938. Type: Chiang Mai, Pang Tawn, 29 Apr. 1931, *Put 3810* (lectotype **K** 001067667!, selected here; isotypes **BK** 257572!, **BM** 000617344!, **E** 00284178!, **LL** 00375160!).

***Premna trichostoma*** Miq., Fl. Ned. Ind. 2: 892. 1858. Type: Indonesia, Java, Banjoemas, 1802–1818, *Horsfield s.n.* (holotype **L**, isotypes **BM** 000950197!, **K** 000647000!).

—*Premna quadridentata* H.R. Fletcher, Bull. Misc. Inform. Kew 1938: 201. 1938. Type: Thailand, Trat, Koh Chang, 7 Jan. 1929, *Kerr 16563* (lectotype **K** 000610344!, selected here; isolectotypes **BK** 257575!, **BM** 000950182!, **E** 00284231!, **LL** 00375158!).

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Figure 1. *Premna paniculata* H.R.Fletcher: A. fruiting branch; B. flowers; C. young fruits.

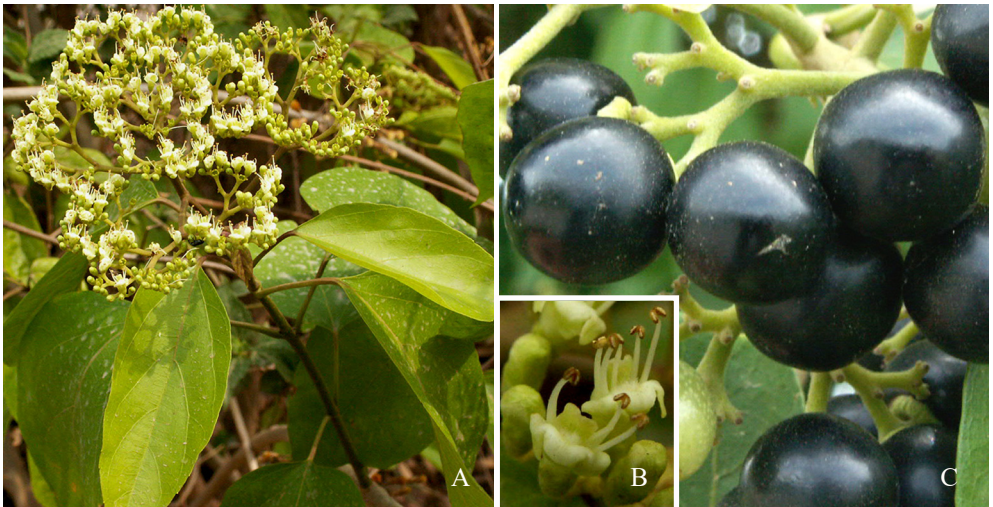


Figure 2. *Premna pubescens* Blume: A. flowering branch; B. flowers; C. ripening fruits.

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