



中国锦葵科一新记录种——克氏梧桐

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摘 要:首次报道中国锦葵科一新记录种——克氏梧桐 [*Firmiana kerrii* (Craib) Kosterm.]. 该种原记载产自泰国和缅甸, 2019 年该种在中国云南西双版纳州勐腊县发现有分布。凭证标本保存在中国科学院西双版纳热带植物园标本馆(HITBC)。该文给出了中国已知的 9 种梧桐属植物的分种检索表。

关键词:克氏梧桐; 锦葵科; 新记录; 中国

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Firmiana kerrii (Craib) Kosterm., a Newly Recorded Species of Malvaceae from China

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Abstract: *Firmiana kerrii* (Craib) Kosterm. (Malvaceae) was previously known from Thailand and Myanmar. It was newly found growing in rocky crannies of limestone hilltops in Mengla County, Xishuangbanna, Yunnan Province, China. Vouchers were deposited at the Herbarium of Xishuangbanna Tropical Botanical Garden (HITBC). A key to the nine species of *Firmiana* currently known from China is provided.

Key words: *Firmiana kerrii*; Malvaceae; new record; China

The family Malvaceae *s. l.* corresponds to four traditional plant families Malvaceae *s. s.*, Bombacaceae, Sterculiaceae and Tiliaceae. It includes 250 genera allocated in nine subfamilies^[1]. The subfamily Sterculioideae (Malvaceae) is characterized by apetalous flowers, petaloid sepals, secondary apocarp and mostly unisexual flowers with androgynophores^[2-3]. It has a pan-tropical distribution, and it is mostly centered and diversified in southeastern Asia^[4]. The genus *Firmiana* Marsili comprises ca. 16 species of deciduous trees (rarely shrub) currently distributed in eastern Africa and eastern-southeastern Asia to Malaysia^[5]. Eight

species of *Firmiana* inhabit south and southwest China^[4, 6].

In February 2019, Jian-Yong Shen, Xing-Da Ma and Wen-Guang Wang conducted a field survey in Mengla County in Xishuangbanna and collected an unknown species of the genus *Firmiana*. After examining the specimens and literatures of *Firmiana* from China and the adjacent regions, the authors identified it as a new record species of China, *Firmiana kerrii* (Craib) Kosterm.^[7]. Here we provided a detailed description and photographs of *Firmiana kerrii*, and a key to the genus *Firmiana* in China.

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1 克氏梧桐(新拟,图版 I)

***Firmiana kerrii* (Craib) Kosterm., *Reinwardtia* 5: 389, 1961 (Plate I)**

Sterculia kerrii Craib, Kew Bull. 1915: 424, 1915; Fl. Siam. Enum. 1: 167, 1925. Type: Thailand, Dio Chung Dao, 28 January 1913, *Kerr A. F.G.* 2866 (BM!).

Deciduous trees, 6–8 m tall; bark greyish black, flaking. Branchlets gray-brown, nearly glabrous. Leaves shallowly lobed, thick, glossy dark green above; petiole 4–10 cm long, with sparse yellowish brown stellate hairs; leaf blade broadly ovate or nearly round, 10–18 cm × 8–17.5 cm, apically 5-lobed, the two lower lobes short, rounded, the three upper lobes longer, acuminate, base nearly cordate; glabrous above, lower surface densely stellate-pilose; basal veins 9–11, veinlets prominent on both sides. Inflorescence panicle, terminal, 5–10 cm long; golden to red-brown stellate hairy. Pedicel 5–8 mm long, densely stellate hairy. Calyx cylindric, pale white, 17–20 mm long, hairy, divided nearly to base, lobes oblong-linear, 12–14 cm × 3–7 mm; abaxially white to yellowish stellate hairy, adaxially white with tufts

of long hairs at base. Male flowers; androgynophore ca. 18 mm long, glabrous; anthers 15, in capitate cluster. Female flowers; androgynophore ca. 15 mm long, glabrous; ovary globose, glabrous, staminode pear-shaped, pale white. Follicles stalked, red or purple when young, purple to greenish when mature; dehiscent follicle foliaceous, tongue-shaped, 4–4.5 cm × 1.7–2.2 cm, 1–2 seeded. Seeds pale yellow, glabrous, ellipsoidal, 8–12 mm long, ca. 6 mm in diam. Flowering February to March, fruiting March to May.

Distribution and ecology: Thailand, Myanmar. China: Yunnan Province, Xishuangbanna, Mengla County, newly recorded from China. It grows in rocky crannies of limestone hilltops, at an elevation of 988 m.

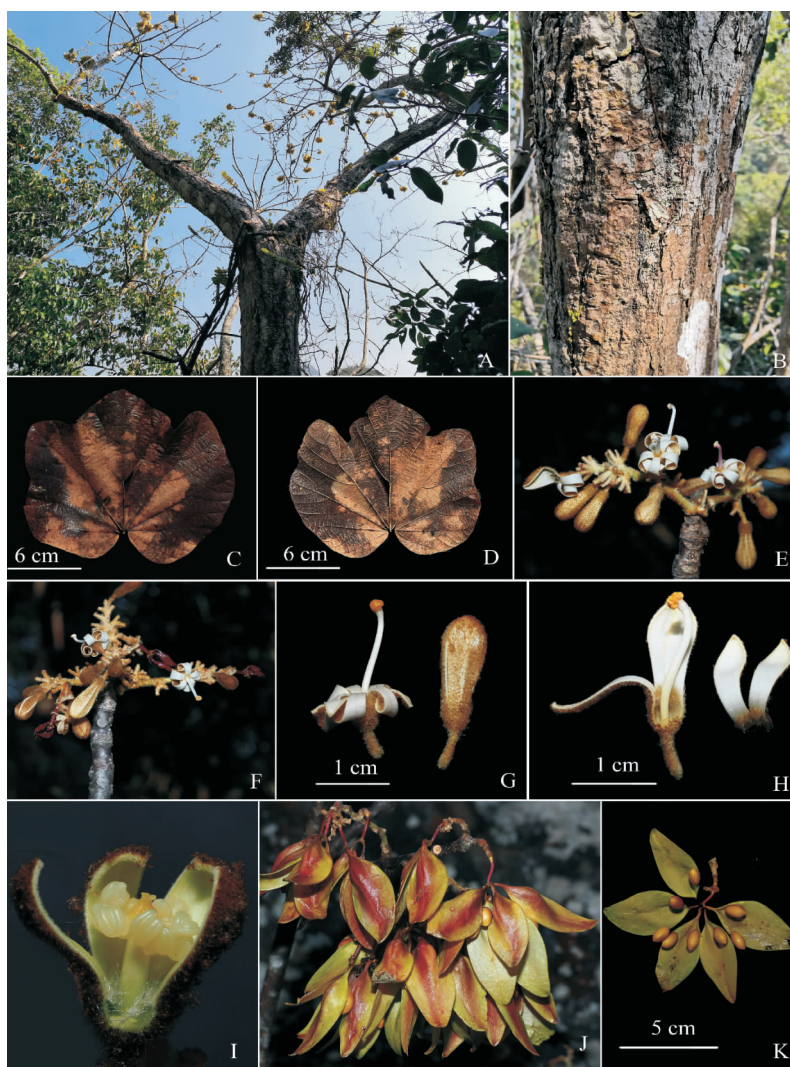
Specimens examined: Thailand (泰国): Dio Chung Dao, 28 January 1913, *Kerr A. F.G.* 2866 (Type, BM!). Myanmar (缅甸). Southern Shan State (掸邦南部): Ywangan Township, elev. 1426 m, 1 Feb 2018, *Kim et al.* MM-6614 (HHU!). China (中国). Yunnan Province (云南省), Xishuangbanna (西双版纳州), Mengla County (勐腊县), Yiwu Zhen (易武镇), elev. 988 m, 12 March 2019, Jian-Yong Shen, Xing-Da Ma & Wen-Guang Wang 098 (HITBC!).

2 Key to the nine species of the genus *Firmiana* in China

- 1a. Flowering when leafless (2)
- 1b. Flowering with leaves present (5)
- 2a. Calyx lobes much shorter than tube (3)
- 2b. Calyx divided almost to base, lobes much longer than tube *F. kerrii* (Craib) Kosterm.
- 3a. Base of leaf blade deeply cordate, apex obtuse; calyx funnel-shaped, base nearly cuneate *F. colorata* (Roxburgh) R. Brown
- 3b. Base of leaf blade truncate or shallowly cordate, apex acuminate; calyx subcampanulate or cylindric, base ± rounded (4)
- 4a. Lobes of leaf blade 9–14 cm, apex long acuminate; calyx subcampanulate, ca. 16 mm, densely stellate pubescent with rust-colored hairs *F. pulcherrima* H. H. Hsue
- 4b. Lobes of leaf blade 2–3 cm, apex acute to shortly acuminate; calyx cylindrical, ca. 32 mm, densely stellate tomentose with golden and reddish brown hairs *F. kwangsiensis* H. H. Hsue
- 5a. Leaf blade abaxially glabrous or slightly pilose; inflorescence terminal (6)
- 5b. Leaf blade abaxially densely hairy; inflorescence terminal or axillary (7)
- 6a. Leaf blade cordate, 3–5-lobed, 15–30 cm wide; bark greenish; flowers yellowish green or yellow-white *F. simplex* (Linnaeus) W. Wight
- 6b. Leaf blade suborbicular, entire, 8–10 cm wide; bark blackish brown; flowers purple *F. danxiaensis* H. H. Hsue & H. S. Kiu
- 7a. Calyx color yellow-white, leaf blade entire *F. hainanensis* Kostermans
- 7b. Calyx color pale rose, leaf blade 3-lobed or entire (8)
- 8a. Tree, leaf blade 3-lobed, 17–30 cm × 19–40 cm, petiole 15–45 cm long *F. major* (W. W. Smith) Handel-Mazzetti
- 8b. Shrub, leaf blade entire or shallowly 3-lobed, 6–12 cm × 6–15 cm, petiole 3.5–13 cm long *F. calcarea* C. F. Liang & S. L. Mo ex Y. S. Huang

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图版 I 克氏梧桐

A. 习性; B. 树干; C. 叶片正面; D. 叶片反面; E~F. 花序; G. 雄花; H. 雄花解剖; I. 雌花; J. 果序; K. 果实和种子

Plate I *Firmiana kerrii* (Craib) Kosterm

Fig. A. Habit; Fig. B. Tree trunk showing bark flaking; Fig. C. Adaxial side view of leaf; Fig. D. Abaxial side view of a leaf; Fig. E, F. Inflorescence; Fig. G. Male flowers; Fig. H. Dissection of a male flower; Fig. I. Female flower; Fig. J. Infructescence; Fig. K. Fruits and seeds

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