
A New Species of *Manglietia* (Magnoliaceae) from China

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ABSTRACT. *Manglietia albistaminea* Law, R. Z. Zhou & X. S. Qin, a new species from China, is described and illustrated. This species is similar to *M. fordiana* Oliver and *M. hainanensis* Dandy, from which it differs by fine short hairs on both leaf surfaces, white stamens, and white pilose carpels.

Key words: China, Magnoliaceae, *Manglietia*.

The genus *Manglietia* was described in 1823 by Blume and comprises about 31 species, of which 22 species are reported from Southwest and South China, including Guangxi, Guangdong, Yunnan, Guizhou, Hainan, and neighboring areas; the remaining 9 species are known from Myanmar, Vietnam, Laos, Thailand, Indonesia, Java, and some neighboring regions (Law, 1984, 1996, 2004; Law et al., 1995; Zeng & Law, 2004). Thus, the region of Southwest and South China may be assumed to be the center of recent distribution and origin for the genus (Law, 1984).

The Magnolia Garden at South China Botanical Garden, the Chinese Academy of Sciences, covers 12 hectares and contains 11 genera with about 130 species. It was founded in 1978 and has become one of the largest conservation centers for Magnoliaceae germplasm. From the time the garden was established, the authors, under the direction of Prof. Law Yu-hu, have introduced *Magnolia* plants from throughout China to be cultivated at the garden. The new species *Manglietia albistaminea* described in this paper was discovered in 1981 under evergreen broad-leaved forests on Mt. Jianfengling, Ledong County, Hainan Province, China, and plants were introduced to the Magnolia Garden at South China Botanical Garden, the Chinese Academy of Sciences.

The new species is assigned to *Manglietia* Blume on the basis of its young leaves folded in bud, flowers terminal, and stipules adnate to petioles. For Chinese taxa, the generic concept of *Manglietia*, sensu Law et al. (1995) is preferred over the larger generic concept for *Magnolia* as treated by Figlar and Nootboom (2004).

Ledong County, Mt. Jianfengling, under evergreen broad-leaved forests, type made from introduced plant at South China Botanical Garden, the Chinese Academy of Sciences, 10 May 2001, R. Z. Zhou 130 (holotype, IBSC; isotype, MO). Figure 1.

Species *Manglietia fordiana* Oliver et *M. hainanensis* Dandy affinis, sed foliis oblanceolatis, utrinque pubescentibus; staminibus 80 ad 160, albis; gynoeciis triangulari-ovoideis, viridi-albis, stylis albis, carpellis 25–26, pubescentibus differt.

Evergreen trees to 30 m tall, 40 cm diam.; bark grayish brown, horizontally lenticellate; young twigs green, mature ones pale brown. Leaves thinly leathery, oblanceolate, 11–16 × 3–4 cm, apex long-acuminate or acute, base narrowly cuneate, margins undulate, puberulent on both surfaces; midrib impressed above and raised beneath, lateral veins 10 to 14 on each side; petioles 2–3 cm long, slightly expanded at base, stipular scars 3–3.5 mm long. Flower buds ellipsoid, pale green; flowers fragrant, tepals 9, carnosae, outer 3 pale green, with longitudinal veins, 6 to 7 × ca. 3.5 cm; middle 3 white, obovate to spatulate, ca. 5.6 × ca. 4 cm; inner 3 tepals white, narrowly obovate to elliptic, ca. 5 × ca. 2.5 cm; stamens 80 to 160, white, 0.8–1 cm long, anthers 6–8 mm long, introrsely dehiscent, connective appendages triangular at the apex; gynoecia green, triangular-ovoid in shape, styles short, white, carpels 25 to 26, mid-portion with longitudinal furrow and white trichomes, each carpel with 3 to 4 ovules. Fruit aggregates unseen.

Distribution and habitat. This new species is found in evergreen broad-leaved forests on Mt. Jianfengling, Hainan Province. In the 1980s, the first authority for the new species, Law Yu-hu, and others introduced *Manglietia albistaminea* into cultivation in the Magnolia Garden at the South China Botanical Garden, the Chinese Academy of Sciences. The type of this species was collected from the cultivated location.

Phenology. The plants have been observed to flower in April–May. Fruits have not been produced in

Manglietia albistaminea Law, R. Z. Zhou & X. S. Qin, sp. nov. TYPE: China. Hainan Province:

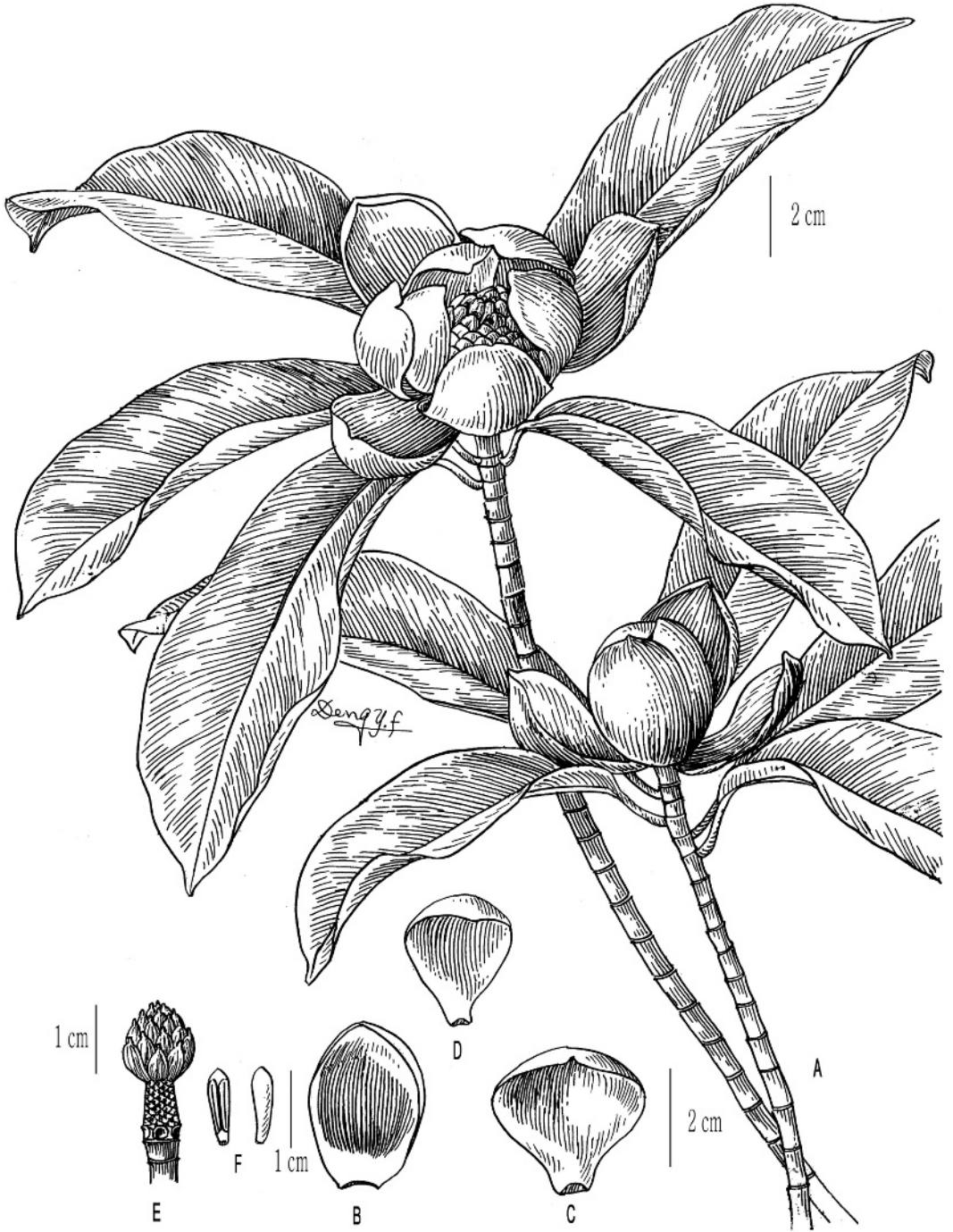


Figure 1. *Manglietia albistaminea* Law, R. Z. Zhou & X. S. Qin. —A. Two fertile branches. —B–D. Tepals. —E. Gynoecium. —F. Stamen. Drawn from the holotype, R. Z. Zhou 130 (IBSC).

Table 1. Morphological differences between *Manglietia albistaminea*, *M. fordiana*, and *M. hainanensis*.

Characters	<i>M. albistaminea</i>	<i>M. fordiana</i>	<i>M. hainanensis</i>
Twigs	young twigs green, glabrous	young twigs rufous appressed pilose	young twigs rufous appressed pilose
Leaves (cm)	11–16 × 3–4, puberulent on both surfaces	8–17 × 2.5–5.5, rufous appressed pilose beneath	10–20 × 3–7, rufous appressed pilose beneath
Petioles (cm)	2–3	1–3	3–4.5
Stamens	white, connective appendages triangular at the apex	red, connective appendages obtuse at the apex	red, connective appendages obtuse at the apex
Gynoecium	triangular-ovoid	ovoid	ovoid
Carpels	white pilose, each carpel with 3 to 4 ovules	glabrous, each carpel with 8 to 10 ovules	glabrous, each carpel with 5 to 8 ovules

Note: The measurements for *Manglietia fordiana* and *M. hainanensis* are cited from Law (1996, 2004).

the Magnolia Garden at the South China Botanical Garden.

Taxonomic remarks. This new species differs from others in *Manglietia* by its leaves puberulent on both surfaces, its white stamens, and white pilose carpels. It is similar to *Manglietia fordiana* Oliver and *M. hainanensis* Dandy. More detailed morphological comparisons of these three species are given in Table 1.

Paratypes. CHINA. **Hainan Prov.:** Ledong County, Mt. Jianfengling, collected from introduced plant at South China Botanical Garden, the Chinese Academy of Sciences, 23 Apr. 1999, *R. Z. Zhou 9916* (IBSC); 5 May 2001, *R. Z. Zhou 0136* (IBSC).

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