

Magnolia shangsiensis (Magnoliaceae), a new species from Guangxi, China

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Magnolia shangsiensis Law, R.Z. Zhou & H.F. Chen *sp. nova* (Magnoliaceae) is described and illustrated from Guangxi, China. It differs from *M. championii* mainly by its longer and more glabrous leaves with an inconspicuous reticulation of nerves, by its pendulous peduncles, and compressed cylindrical, pubescent gynoeceium.

Key words: *Magnolia*, new species, taxonomy

Members of the Magnoliaceae occur in greatest diversity in China. Approximately 11 genera and more than 160 species of Magnoliaceae are found in that country, accounting for 69% and 53% of all Magnoliaceae genera and species, respectively. *Magnolia* is a genus of about 90 species, of which approximately 40 occur in China, being mainly distributed in SW China and from south of Qinling to east and NE China (Law 1996, 2004).

During an expedition to Mount Shiwangdashan in Shangsi County, Guangxi Province in the spring of 1990, the second author collected a specimen of *Magnolia* and introduced it in the Magnolia Garden of the South China Botanical Garden. After careful study of this specimen under cultivation, and after gathering more material from the wild, it proved to be a new species.

Magnolia shangsiensis Law, R.Z. Zhou & H.F. Chen, *sp. nova* (Fig. 1)

Species affinis *M. championii*, a qua foliis crassis

coriaceis, utrinque lucidis; nervis lateralibus utrinque 11–15; nervis atque rete venularum inconspicuis; pedicellis pendulis, pilis cineraceis appressis obtectis; tepalis majoribus, 3–4 cm longis et 1.6–2.5 cm latis; staminibus 170–200, ca. 10 mm longis, connectivis obtuso mucronatis; gynoeceiis compressis cylindricis, puberulis, differt.

TYPE: China, Guangzhou, *Magnolia* Garden of South China Botanical Garden, the Chinese Academy of Science. Introduced from China, Guangxi Province, Shangsi County, Mount Shiwandashan, in monsoon evergreen broad-leaved forests, at alt. 300–500 m, 20.X.2001 R. Z. Zhou 0112 (holotype IBSC).

Evergreen small trees to 5 m tall and 20 cm in diam.; bark blackish-brown; young twigs green, becoming grayish-brown with age. Leaves thick, leathery, long elliptic-ovate or long elliptic, 10–19 × 3–6 cm, apex acuminate to long acuminate, base broadly cuneate, dark-green above, pale-green below, lateral nerves 11–15 on each side of midnerve, reticulate veins inconspicuous, margin undulate; petioles 1–2 cm long, slightly expanded

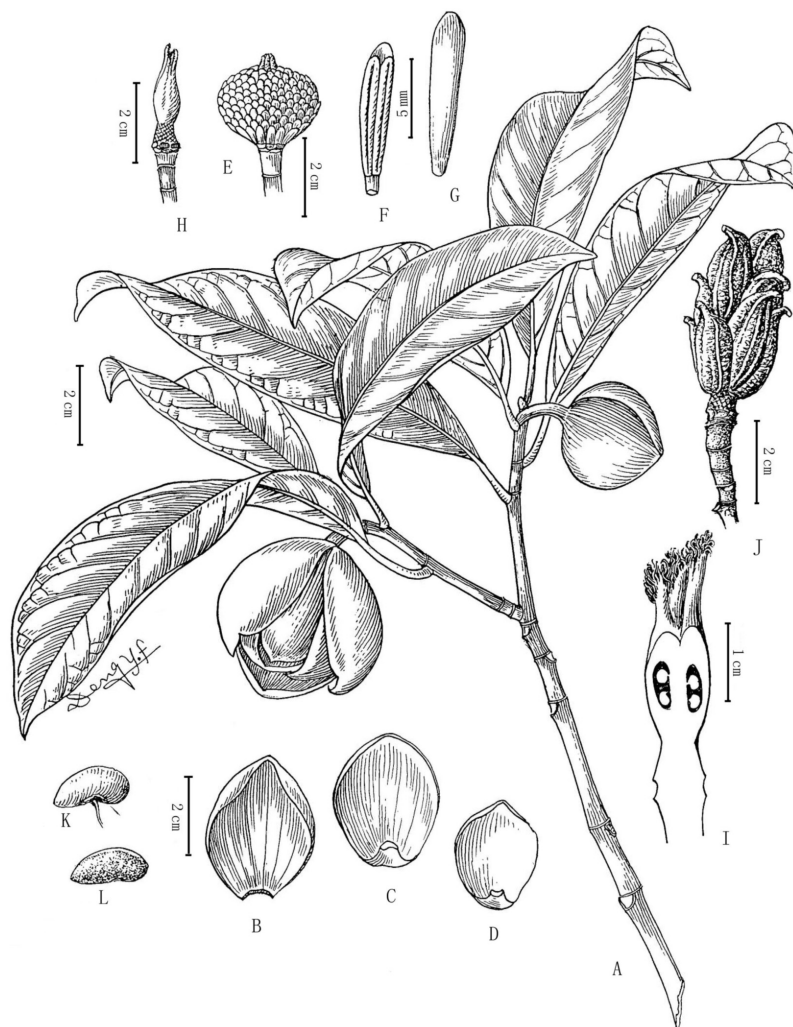


Fig. 1. *Magnolia shangsiensis* (from holotype and paratype, drawn by Ying-Feng Deng). — **A:** Flowering twig. — **B:** Outer tepal. — **C:** Mid tepal. — **D:** Inner tepal. — **E:** Androecium and gynoecium. — **F and G:** Stamens. — **H:** Gynoecium. — **I:** Longitudinal section of carpel. — **J:** Fruit. — **K and L:** Seeds.

at base, stipule-scars almost reaching apex of petioles. Flower buds green, globose or broadly ovoid; peduncles pendulous, light green, covered with gray, appressed hairs. Flowers bisexual, fragrant, solitary and terminal; tepals 9, obovate, outer 3 dark-green, abaxial surfaces with raised oil-dots, 7-nerved, 3.5×2 cm, mid 3 white, thick and fleshy, 4×2.5 cm, retuse at apex, inner 3 white, thick and fleshy, 3.5×1.6 cm, acute at apex; androecia ovoid, white, stamens 170–200, ca. 10 mm long, anthers introrsely dehiscent, connectives produced into short, obtuse appendages; filaments very short; gynoecium compressed cylindrical, ca. 1 cm long, pale-yellow or pale-green, pubescent, carpels 8–14, basal 2/3 with 3–4 longitudinal ridges, each carpel

with 2 ovules. Fruit aggregates ovoid-ellipsoid, 3.5–4.5 cm long, 2–2.5 cm in diameter, follicles thick, woody, seeds long ellipsoid or triangular, $1.2\text{--}2.1 \times 0.7\text{--}0.9$ cm, endotesta abaxially furrowed, chalazal region hole-shaped, elevated. Flowering April to May, fruiting from September to October.

Compared with other evergreen species in section *Gwillimia*, this new species closely resembles *M. championii* (Bentham 1861), but differs from the latter mainly by its inconspicuous reticulate veins, pendulous peduncles, and connectives produced into short obtuse appendages. More detailed morphological differences between the two species are given in Table 1.

Table 1. Morphological differences between *Magnolia shangsiensis* and *M. championii*.

Characters	<i>M. shangsiensis</i>	<i>M. championii</i>
Life form	small evergreen trees	evergreen shrubs or small trees
Buds	green, globose or broadly ovoid	pale-green, globose
Young twigs	green, glossy, glabrous	pale-brown, appressed-villose
Leaves	10–19 × 3–6 cm, thick, leathery, elliptic-ovate or elliptic, glabrous	7–14 × 2–4.5 cm, leathery, narrowly oblong-elliptic or narrowly obovate-elliptic, asperous
Petioles	1–2 cm long, glabrous	0.5–1.5 cm long, appressed-villose
Stipule scars	ca. 12 mm long	ca. 6 mm long
Tepals	9; 3.5 × 2 cm, obovate	9; 2–2.5 × 1.5 cm, oblong-elliptic
Androecia	ovoid, white	ovoid, pale-yellow
Stamens	170–200, ca. 10 mm long	110–130, ca. 8 mm long
Connectives	short obtuse	short triangular
Gynoecium	compressed cylindrical, ca. 1 cm long, pilose	narrowly obovoid, ca. 1 cm long white villose
Carpels	8–14	9–11
Peduncles	pendulous, light green, gray appressed pilose	erect, pale brown appressed villose
Aggregate fruits	ovoid-ellipsoid, 3.5–4.5 × 2–2.5 cm	ellipsoid, 3–4 × 2–3 cm
Seeds	long ellipsoid or triangular	narrowly ellipsoid or irregularly ovoid

ADDITIONAL SPECIMEN EXAMINED (paratype). — **China.** Guangzhou, *Magnolia* Garden of South China Botanical Garden of CAS, 2.X.2002 R. Z. Zhou 02521 (IBSC), 18.X.2004 Q. W. Zeng 91 (IBSC).

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