

Michelia guangdongensis (Magnoliaceae), a new species from China

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Michelia guangdongensis Y.H. Yan, Q.W. Zeng & F.W. Xing *sp. nova* (Magnoliaceae) is described from Guangdong, China and illustrated. It is compared with *M. foveolata* and *M. elegans*, from which it differs mainly in its shorter stature, smaller leaves with fewer lateral veins, more numerous and wider tepals, and shorter stamens.

Key words: Magnoliaceae, *Michelia*, new species, taxonomy

The genus *Michelia*, including 50 taxa, mainly occurs in China, India, Sri Lanka, Indochina, Malaysia and south Japan (Law *et al.* 1995, Law 1996). Forty-one species of *Michelia* are recorded from China (Law 1996), and this country is considered the centre of modern distribution and diversity of the genus (Law 1984, Law *et al.* 1995, Law 1996, Law 2000).

In a recent survey at the mountaintop of Chuandiding in Yingde, Guangdong, China, we found a species of *Michelia* with a short stature, small leaves, white flowers and dense rufous hairs on the lower surface of leaves. It can not be placed in any of the previously described taxa and is thus here described as a new species.

Michelia guangdongensis Y.H. Yan, Q.W. Zeng & F.W. Xing, *sp. nova* (Fig. 1)

Affinis *M. foveolatae* et *M. eleganti*, a quibus frutex 1–4 m altus, ramulis gemmis petiolis alabastris pedunculis gynoeiisque dense ferrugineis

pubentibus; folia crassa coriacea, elliptica vel ovata, 4.5–9 cm longa, 2.5–4.5 cm lata, nervis lateralibus utrinque 4–9; petiolis eciatricatis, 0.5–1.5 cm longis; alabastris longe ovoideis; tepalis 10–12, albis, obovatis, 3–5 exterioribus 5.6–6.2 cm longis, 2.5–3.0 cm latis, antheris 6–8 mm longis, gynoeiis cylindricis, viridibus; carpellis ovoideis, 13–20, ovulis 4–6, biserialibus, differt.

TYPE: China. Guangdong Province, Yingde County, Mount Chuandiding, in shrubbery and moss forests at the peak of Mulongding, 1250–1400 m, 23.V.2003 Y. H. Yan 922 (holotype IBSC).

Evergreen shrubs to 1–4 m tall and 10 cm in stem diam.; bark pale grayish brown; buds and young twigs dense, rufous, appressed pubescent. Leaves thickly leathery, obovate-elliptic or obovate, 4.5–9 cm long, 2.5–4.5 cm wide, apex obtuse or acute, base rounded or broadly cuneate, dark green, glossy and glabrous above, densely rufous appressed-villose beneath, margins slightly revolute; lateral veins 4–9 on each side, anastomosing into an intramarginal vein

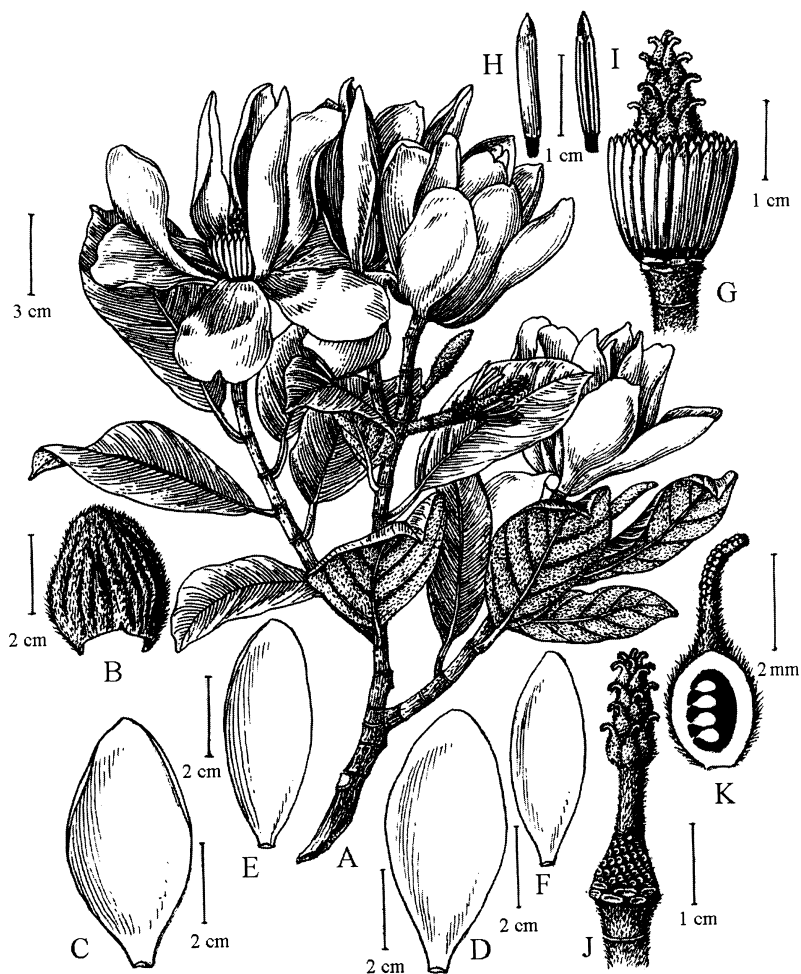


Fig. 1. *Michelia guangdongensis* (from holotype, drawn by Ying-Feng Deng). — A: Flowering twig. — B: Bract. — C–F: Tepals. — G: Androecium and gynoecium. — H: Adaxial surfaces of stamen. — I: Abaxial surfaces of stamen. — J: Gynoecium. — K: Longitudinal section of carpel.

near edge of lamina, reticulate veins conspicuous and dense; petioles 0.5–1.5 cm long, densely rufous appressed-villose, without stipular scars. Flowers fragrant, axillary or terminal; flower buds long ovoid, densely rufous appressed-villose, with 1 bract; peduncles 1.5–2.8 cm long, 2.5–3.0 cm in diam.; tepals 10–12, white, base slightly greenish, outer 3–5 obovate-elliptic, 5.6–6.2 cm long, 2.5–3.0 cm wide, mid 3–4 elliptic or obovate-elliptic, 5.6–7.0 cm long, 2.7–3.0 cm wide, inner 3 elliptic, 5.4–7.0 cm long, 1.9–2.5 cm wide; stamens 50–70, pale green, 1.1–1.5 cm long, anthers 6–8 mm long, laterally dehiscent, connectives produced into 1 mm long triangular appendages, filaments 3 mm long, purplish; gynoecium cylindric, green, 0.9–1.4 cm long, rufous pilose, carpels 13–20, 4–6-ovulate in 2 lines, styles 1–3 mm long, purplish-red, outcurved;

gynophore 6–8 mm long, green, puberulent. Fruits not seen. Flowering in March.

ECOLOGY. The species grows in the grasslands, shrubbery and moss forests at the peak of Chuandiding mountain at 1250–1400 m, together with *Lycopodium japonicum*, *Osmunda japonica*, *Miscanthus chinensis*, *Arundinella anomala*, *Pentaphragma eurypoides*, *Fagus longipetiolata*, *Rhododendron westlandii*, *Rhododendron simsii*, etc.

Michelia guangdongensis is closely related to *M. foveolata* (Dandy et al. 1928) and *M. elegans* (Law & Wu 1988), but differs mainly in its shorter stature, smaller leaves with fewer lateral veins, more numerous and wider tepals, and shorter stamens. The differences between *M. guangdongensis* and the two other species are given in more detail in Table 1.

Table 1. Differences among *Michelia guangdongensis*, *M. elegans* and *M. foveolata*.

Characters	<i>M. guangdongensis</i>	<i>M. elegans</i>	<i>M. foveolata</i>
Life form	shrubs, 1–4 m tall	small trees, 5–10 m tall	large trees, 30 m tall
Leaves	thickly leathery 4.5–9 × 2.5–4.5 cm obovate, obovate-elliptic densely rufous villose beneath	leathery 9–14 × 4.5–5.5 cm obovate-oblong, rarely oblong dense brown pubescent beneath	thickly leathery 17–23 × 6–11 cm broadly lanceolate, oblong-elliptic rufous tomentellous beneath
Petioles	rufous villose	pubescent	pale silvery villose
Lateral veins	4–9 on each side	11–13 on each side	16–26 on each side
Tepals	10–12; 5.6–6.2 × 2.5–3.0 cm white, base greenish obovate-elliptic	9; 3 × 1.5–2 cm white obovate-oblong or obovate	9–12; 6–7 × 1.5–2.5 cm pale yellow, base purplish broadly obovate
Gynoecia	1.2–1.8 cm long densely rufous pubescent	0.8–1.5 cm long gray or golden yellow puberulent	2–3.5 cm long silvery tomentellous
Stamens	1.1–1.5 cm long	ca. 1.5 cm long	2–3 cm long
Carpels	densely pubescent, ca. 2 mm	densely pubescent, ca. 2.5 mm	densely silvery villose, ca. 5 mm
Ovules	4–6	ca. 6	ca. 8

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