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Manglietia oblonga (Magnoliaceae), a new species from South China

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Manglietia oblonga Law, R.Z. Zhou & X.S. Qin *sp. nova* from China is described and illustrated in line drawings. It is most similar to *M. forrestii* and *M. yuyuanensis*, from which it differs in its buds, petioles, upper and lower surfaces of leaves and peduncles being golden appressed-pilose, and in its tepals with horizontally undulate striae.

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

Many species of Magnoliaceae are dominant elements of tropical and subtropical forests, especially in East and Southeast Asia, southeastern North America, Central America and the northern part of South America. There are 15 genera and about 246 species in the world, and 11 genera and 99 species in China. East and Southeast Asia may be assumed to be the center of diversity of Magnoliaceae (Law 1995).

The genus *Manglietia* comprises about 31 species, of which 22 are reported from Southwest and South China including Guangxi, Guangdong, Yunnan, Guizhou, Hainan and the neighbouring areas. The remaining species are known from Myanmar, Vietnam, Laos, Thailand, Indonesia, Java and some neighbouring regions (Law 1984, 1995, 1996, 2004, Zeng 2004). Thus, it is assumed that the region of Southwest and South China is not only the center of diversity and origin, but also a chief survival center, or refugium, of *Manglietia* (Law 1984).

The Magnolia Garden of South China Botanical Garden, the Chinese Academy of Sciences, covers 12 hectares and contains 11 genera with about 130 species, and was established in 1978. In 1981, the species described in this paper was found in evergreen broad-leaved forests at alt. 800–1200 m in Lingui County, Guilin City, Guangxi Province, China, and it was introduced to the Magnolia Garden.

Manglietia oblonga Law, R.Z. Zhou & X.S. Qin, *sp. nova* (Fig. 1)

Affinis M. forrestii et M. yuyuanensi, sed gemmis, petiolis, foliis, pedunculisque, bracteisque aureo-pubentibus; foliis obovato-ellipticis vel ellipticis; tepalis dorsaliter striatis, striis horizontalibus undulatis; carpellis brunneis pubentibus differt.

TYPE: China. Guangdong Province, Guangzhou, the

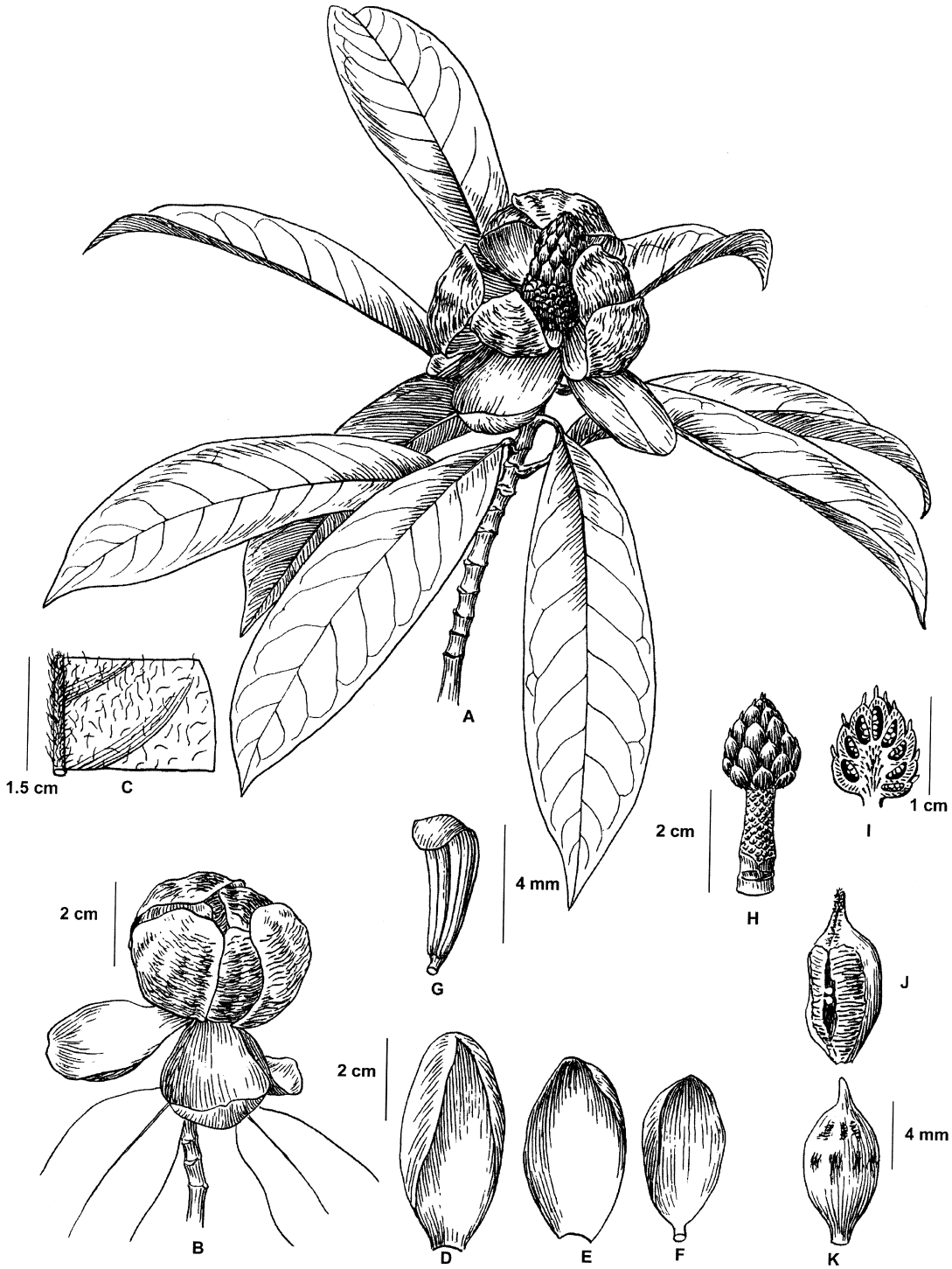

Fig. 1. *Manglietia oblonga* (from holotype). — **A**: Flowering twig. — **B**: Twig with flower bud. — **C**: Part of lower surface of leaf. — **D**–**F**: Tepals. — **G**: Stamen. — **H**: Gynoecium. — **I**: Longitudinal section of gynoecium. — **J**–**K**: Carpels.

Magnolia Garden of South China Botanical Garden, the Chinese Academy of Sciences. Introduced from China, Guangxi Province, Guilin City, Lingui County, in evergreen broad-leaved forests at alt. 1000 m, 12.V.2001 *R. Z. Zhou 118* (holotype IBSC).

Evergreen trees up to 20 m tall, 40 cm in diam.; bark blackish-brown, longitudinally dehiscent lenticellate; young twigs pale green, old ones brown; buds, upper and lower surfaces of leaves, petioles and peduncles golden appressed-pilose. Leaves coriaceous, obovate-elliptic or elliptic, 13–20 × 3.5–4.5 cm, apex acuminate, base cuneate; nerves 12 to 15 on each side; petioles 2–2.5 cm long, slightly expanded at base, stipular scars ca. 6 mm long. Flowers fragrant, tepals 9, outer 3 pale green, slightly thin, inner ones white, thickly fleshy, with horizontally undulate striae, mid 3 ovate, 4.5–5.5 × 2.5–3.5 cm, inner 3 narrowly ovate, 4–5 × 2–3 cm; stamens ca. 274, red, 6–7 mm long, connective appendages triangular at apex, anthers 5–6 mm long, introrsely dehiscent. Gynoecium green, ovoid; carpels 14 to 21, narrowly ovoid, ca. 7 mm long, brown pilose, styles white. Fruits not seen. Flowering April–May.

DISTRIBUTION AND ECOLOGY: *Manglietia oblonga* is found in evergreen broad-leaved forests at alt. 800–1200 m in northern Guangxi (Lingui). In the 1980s, the fourth author, Law Yu–Hu and others introduced it to cultivate in the Magnolia Garden of South China Botanical Garden, the Chinese Academy of Sciences and now it grows very well.

Manglietia oblonga is very distinct, because its tepals have horizontally undulate striae on the surfaces, and its buds, petioles, upper and lower surfaces of leaves, and peduncles are all appressed-pilose, the hairs golden-yellow in colour. *Manglietia oblonga* is similar to *M. forrestii* and *M. yuyuanensis*. The three species are compared in Table 1.

ADDITIONAL SPECIMENS EXAMINED (paratypes): **China**. Guangdong Province, Guangzhou, the Magnolia Garden of South China Botanical Garden, the Chinese Academy of Sciences, 24.V.2005 *X. S. Qin 1125* (IBSC); 10.V.2002 *R. Z. Zhou 02118* (IBSC); 4.VI.1994 *R. Z. Zhou 9402A* (IBSC); 18.V.1989 *Y. Q. Chen 129* (IBSC).

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Table 1. Morphological comparison of *Manglietia oblonga*, *M. forrestii* and *M. yuyuanensis*.

Characters	*M. oblonga*	*M. forrestii*	*M. yuyuanensis*
Buds	golden appressed-pilose	rufous appressed glossy sericeous	golden appressed-pilose
Twigs	pale green, glabrous	rufous appressed glossy sericeous	yellowish brown, glabrous
Leaves	13–20 × 3.5–4.5 cm, golden appressed-pilose on both surfaces	11–20 × 5–9.5 cm, rufous erect sparse hairs beneath	8–14 × 2.5–4 cm, glabrous
Petioles	2–2.5 cm long	1–3 cm long	1–3 cm long
Stipule scars	ca. 6 mm long	3–10 mm long	3–4 mm long
Tepals	9, 4–5.5 × 2–3.5 cm, the outer 3 pale green, the inner ones white, with horizontally undulate striae on surfaces	9, 4–7 × 2–4 cm, the outer 3 abaxial base rufous appressed-pilose, the inner ones white	9, 2.5–4 × 1–2 cm, the outer 3 greenish, the inner 6 pure white
Stamens	ca. 274, 6–7 mm long, connective appendages triangular at the apex	ca. 210, 11–15 mm long, connective appendages obtuse at the apex	ca. 158, 4–7 mm long, connective appendages round at the apex
Gynoecium	ovoid	ovoid	ellipsoid-ovoid
Carpels	14 to 21, brown pilose	35 to 40, glabrous	30 to 40, glabrous

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