

Manglietia longipedunculata (Magnoliaceae), a new species from Guangdong, China

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Manglietia longipedunculata Q.W. Zeng & Law *sp. nova* (Magnoliaceae) is described and illustrated from Guangdong, China. It is closely related to *M. pachyphylla* and *M. crassipes*, from which it differs mainly in its villose, slender peduncles, and more numerous, longer tepals.

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

Introduction

China is one of the countries with the highest number of species in the Magnoliaceae throughout the world. More than 100 species of Magnoliaceae are found in China (Law 1996a). Southwest and south China including Yunnan, Guangxi, Guangdong, Hainan, Guizhou and the neighbouring areas are the center of modern distribution and diversity conservation of Magnoliaceae in the world. The second author, who was engaged in a survey of Magnoliaceae throughout China, described two new genera, 28 new species and two new varieties and proposed a new taxonomic system of Magnoliaceae (Law 1984, 1996b, 1997).

During two expeditions to Mount Nankun, South China, as part of the project received from the National Natural Science Foundation of China, the first author collected a specimen of *Manglietia*. It can not be placed in any of

the previously described taxa and is thus here described as a new species.

Manglietia longipedunculata Q.W. Zeng & Law, *sp. nova* (Fig. 1)

Affinis M. pachyphyllae et *M. crassipi*, a quibus ramulis gemmis petiolis pedunculisque brunneo-villosis, foliis subtus pubescentibus, tepalis 9–11(–12), 3 exterioribus 10–10.5 cm longis et ca. 4 cm latis, pedunculis gracilibus 5–6 cm longis et 0.4–0.5 cm latis, pedunculis fructiferis 5.5–6 cm longis et 0.5–0.6 cm diam. differt.

TYPE: China. Guangdong Province, Longmen County, Mount Nankun, evergreen broad-leaved forests, 23°38'N, 113°53'E, alt. 700 m, 23.V.2000 Q. W. Zeng 28 (holotype IBSC).

Evergreen trees, up to 15 m high and 50 cm in diam., bark blackish brown; twigs green when



Fig. 1. *Manglietia longipedunculata* (from holotype and paratype, drawn by Deng Ying-Feng). — **A**: Flowering twig, showing perianth, leaves and branch. — **B**: Outer tepal. — **C**: Mid tepal. — **D**: Inner tepals. — **E**: Gynoecium. — **F**: Longitudinal section of gynoecium. — **G**: Stamens. — **H**: Fruiting twig. — **I**: Petiole.

young, brown when old, 0.6–1 cm in diam.; buds, young twigs, petioles, peduncles and fruiting peduncles brown villose. Stipules villose, adnate to petioles. Leaves thickly coriaceous, obovate-elliptic or elliptic, 13–19(–22) cm long, 5–7 cm wide, apex short-acuminate or acuminate, base cuneate, dark green and glabrous above, pale green and pubescent beneath; midribs prominent beneath, lateral veins 13–14 on each side, reticulation inconspicuous; petioles 2.5–3.5 cm long, sulcate, stipule scars 7–8 mm long. Peduncles or brachyblast villose, slender, 5–6 cm long, 4–5 mm in diam.; bract scar 1; pedicels villose, 6–7 mm long, 4–5 mm in diam. Flowers bisexual, solitary and terminal; tepals 9–11(–12), outer 3 oblong, thinly coriaceous, abaxially pale green, longitudinally 5-veined, adaxially white, 10–10.5 cm long, 4 cm wide, mid 3–4 white, thickly fleshy, obovate-oblong, 8–9 cm long, 3.5 cm wide, inner 3–5 white, thickly fleshy, obovate-spathulate, 7–8 cm long, 2.5–3 cm wide; stamens numerous, red, 2.5 cm long, anthers yellow, 2 cm long, introrsely dehiscent, filaments purplish-red, 3 mm long, connectives red, produced into semi-orbicular appendages; gynoecium yellowish-green, ovoid, glabrous, 3.5 cm long, 3 cm in diam., styles slightly curved, stigmas reddish, carpels 50–60, ovules 3–4 per carpel. Fruiting peduncles or brachyblast villose, slender, 5.5–6 cm long, 5–6 mm in diam., fruiting pedicels villose, 1.5–1.7 cm long, 5–6 mm in diam. Fruit aggregates ovoid, 4.5–6 cm long, 3.5–4 cm in

diam.; follicles thickly woody, ovoid, dehiscent along dorsal sutures, with orbicular elevated tubercles outside; scars of perianth and stamens along torus under fruit 8–10 mm long; seeds 3–4 per follicle, compressed ovoid. Flowers in May, fruits from August to September.

DISTRIBUTION AND ECOLOGY. South China, Guangdong Province, Longmen County, Mount Nankun, 100 km NE of Guangzhou. This species grows in evergreen broad-leaved forests at 700–800 m with *Syzygium buxifolium*, *Manglietia moto*, *M. pachyphylla*, *Michelia maudiae*, *Lithocarpus uvariifolia*, *Tutcheria spectabilis*, *Camellia cuspidata*, *Daphniphyllum subverticillatum*, *Castanopsis carlesii*, and *Machilus glabriramula*.

Manglietia longipedunculata is closely related to *M. pachyphylla* (Chang 1961) and *M. crassipes* (Law 1982), but it differs mainly in its villose slender peduncles, and more numerous, longer tepals. The differences between *M. longipedunculata* and the other two species are given in Table 1.

ADDITIONAL SPECIMEN EXAMINED (paratype): — China. Guangdong Province, Longmen County, evergreen broad-leaved forests, 23°38'N, 113°53'E, alt. 700 m, 20.IX.2000, Q. W. Zeng 36 (IBSC).

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Table 1. Differences between *Manglietia longipedunculata*, *M. pachyphylla* and *M. crassipes*.

| Characters | <i>M. longipedunculata</i> | <i>M. pachyphylla</i> | <i>M. crassipes</i> |
|--------------------|--|---|---|
| Buds | villose | villose | glabrous and glaucous |
| Twigs | villose | glabrous | glabrous and glaucous |
| Leaves | 13–19(–22) × 5–7 cm, glabrous above, pubescent beneath | 12–32 × 6–10 cm, glabrous on both surfaces | 13–26 × 5–8 cm, glabrous on both surfaces, glaucous beneath |
| Petioles | villose, 2.5–3.5 cm long | glabrous, 3–5 cm long | glabrous, 3–3.5 cm long |
| Stipule scars | 7–8 mm long | 2–3 mm long | 3.5–4.5 mm long |
| Tepals | 9–11(–12); 10–10.5 × 4 cm | 9(–10); 7–8 × 3–3.5 cm | 9; 3.5–4 × 2–2.5 cm |
| Stamen | 2.5 cm long | 1.2 cm long | 1–1.5 cm long |
| Gynoecium | ovoid, 3.5 × 3 cm | ovoid, 2.2 × 1.8 cm | ovoid, 1.5 × 1.8 cm |
| Peduncles | villose, 5–6 × 0.4–0.5 cm | glabrous, 1.2–1.7 × 0.9–1 cm | glabrous, 3.5–4 × 0.6–0.7 cm |
| Pedicels | villose, 0.6–0.7 × 0.4–0.5 cm | glabrous, 0.3–0.4 × 0.9–1 cm | glabrous, 0.2–0.3 × 0.6–0.7 cm |
| Fruiting peduncles | villose, 6–7 × 0.5–0.6 cm | glabrous, 2–2.5 × 0.9–1 cm | glabrous, 4.5–5.5 × 0.9–1 cm |
| Fruiting pedicels | villose, 1.5–1.7 × 0.5–0.6 cm | glabrous, 0.7–0.9 × 0.9–1.1 cm | glabrous, 0.4–0.5 × 0.9–1 cm |
| Aggregate fruits | ovoid, 4.5–5 × 3.5–4 cm | ellipsoid, 5–7 × 4–4.5 cm | ovoid, 5–6 × 3.5–5 cm |

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