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台山含笑，广东木兰科一新种

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摘要：报道了木兰科(Magnoliaceae)含笑属(*Michelia* L.)一新种：台山含笑(*M. taishanensis* Y. H. Tong, X. E. Ye, X. H. Ye & Yu Q. Chen)。该新种目前仅分布于我国广东台山市的北峰山，与广东含笑(*M. guangdongensis* Y. H. Yan, Q. W. Zeng & F. W. Xing)近缘，但其叶柄更纤细，叶背老时变无毛，雄蕊较多且较长，花丝白色，药隔短小而与后者区别。

关键词：木兰科；含笑属；台山含笑；新种；台山

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Michelia taishanensis Y. H. Tong, X. E. Ye, X. H. Ye & Yu Q. Chen (Magnoliaceae), A New Species from Guangdong

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Abstract: A new species of Magnoliaceae, *Michelia taishanensis* Y. H. Tong, X. E. Ye, X. H. Ye & Yu Q. Chen is reported, which is currently known only from Beifeng Mountain in Taishan City, Guangdong, China. This species is similar to *M. guangdongensis* Y. H. Yan, Q. W. Zeng & F. W. Xing, but differs from the latter by its more slender petioles, leaf blades with glabrescent abaxial surface, and more and longer stamens with white filaments and much shorter anther connectives.

Key words: Magnoliaceae; *Michelia*; *M. taishanensis*; New species; Taishan

The genus *Michelia* L., with ca. 70 species, mainly occurs in India, Sri Lanka, China, Indochina, Malaysia and South Japan[1–4]. As one of the centers of modern distribution and diversity of the genus, China harbors 39 or 37 species of *Michelia* including one or two hybrid species[2].

During a recent field trip to Beifeng Mountain in Guangdong, China, an interesting species of *Michelia* with slender petioles and white flowers with numerous stamens draw our attention. At first glance, it seems much like *M. guangdongensis* Y. H. Yan, Q. W. Zeng & F. W. Xing in having obovate white tepals and hairy leaf blades (at least when young). However, the abaxial surface of leaf blade of this unknown species is reddish brown sericeous only when young and becomes glabrous soon, while *M. guangdongensis* has leaf blades with persistent dense rufous hairs on abaxial surface[5]. After a detailed examination of

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morphological characters of this unknown species, we concluded that it is new to science, as described and illustrated below.

Michelia taishanensis Y. H. Tong, X. E. Ye, X. H. Ye & Yu Q. Chen, sp. nov. **(**Figs. 1 & 2)

Type: China. Guangdong Province: Taishan City, Beifeng Mountain, Sanyashi, elev. 792 m, Taishan Expedition 440181190321027LY (holotype IBSC, isotypes IBSC).

Diagnosis: Similar to *M. guangdongensis*, but

Fig. 1 M*ichelia taishanensis*. A: Habit; B: Trunk; C: Flower buds, showing reddish brown sericeous bracts; D: Flower (apical view); E: Fruit, showing open mature carpels and pink seeds. (Photographed: A by X. E. Ye, B–D by G. T. Wang, E by Y. H. Tong)

Fig. 2 M*ichelia taishanensis*. A: Flowering branch; B: Leaves (adaxial view); C: Leaves (abaxial view); D: Flower (side view); E: Flower (back view); F: Tepals (from top to bottom): Inner (3), middle (3) and outer (3); G: Stamens (from left to right: back, front and side view); H: Gynophore and brachyblast. Bars: A–F = 10 cm, G = 2 cm, H = 5 cm (All photographed by X. E. Ye)

differs by its more slender petiole, leaf blades with glabrescent abaxial surface and much more and longer stamens with white filaments and much shorter anther connectives.

Evergreen trees or shrubs, to 6 m tall, to 20 cm DBH. Bark grayish white. Young twigs and buds densely reddish brown sericeous. Petiole slender, 1.5–2.5 cm×ca. 0.15 cm, adaxially narrowly furrowed, without a stipular scar, reddish brown sericeous when young, glabrescent when old; leaf blade obovate, elliptic-obovate or oblong-obovate, 5.5–10.7 cm×3.0–4.7 cm, leathery, reddish brown sericeous on both sides when young, glabrescent when old, secondary veins 7–10 pairs, slender, anastomosing near the margins, with reticulate veins prominent on both sides, reticulate veins slender, forming a honeycomb pattern,

base cuneate to broadly cuneate, apex shortly acuminate. Brachyblasts 1.1–2.3 cm×0.3–0.4 cm, initially reddish brown sericeous, glabrescent; spathaceous bract 1, reddish brown sericeous. Flower buds obovoid to ellipsoid, apex acute. Tepals (8–)9(–10), white, base slightly greenish abaxially, glabrous, outer 3 tepals broadly obovate to obovate-elliptic 4.0–6.3 cm× 2.6–3.2 cm; middle 3 obovate-elliptic, 4.4–6.2 cm× 2.6–3.0 cm; inner (2–)3(–4) elliptic, 2.9–4.6 cm× 1.6–2.3 cm. Stamens 77–100, 2.0–2.3 cm long; filaments flat, white, ca. 5 mm long; anthers slightly incurved, yellowish, 1.4–1.7 cm long; connective mucronate, mucro triangular, ca. 0.2 mm long. Gynophore green, terete, 0.8–1 cm long, together with gynoecium green sericeous when fresh, reddish brown when dry; gynoecium 1.8–2 cm long; carpels 21–25; ovules 4–6 per carpel; style yellowish-green, recurved, 1–1.4 mm long. Fruit 6.5–10 cm long; mature carpels ellipsoid to ovoid, 0.8–1.5 cm×ca. 1 cm, scattered with white lenticels externally, apex with a short tip. Seeds pink, ovoid or subglobose, slightly angled.

Phenology: Flowering from March to April, fruiting from August to September.

Distribution and habitat: *Michelia taishanensis* is currently known only from the type locality, Beifeng Mountain in Taishan City of Guangdong Province. It grows in montane forest at the mountain top at elevations of 740–800 m. The companion species includes *Metasasa carinata* W. T. Lin, *Rapanea neriifolia* (Siebold et Zucc.) Mez, *Symplocos lancifolia* Sieb. et Zucc. and so on.

Etymology: The species epithet refers to the type locality, Taishan City.

Chinese vernacular name: 台山含笑 (tái shān hán xiào).

Taxonomic notes: *Michelia taishanensis* is assigned to *M.* subg. *Michelia* sect. *Michelia* according to Xia's classification[4], as it has fleshy tepals with outer ones larger and long petiole (>5 mm long) without a stipular scar. It is most similar to *M. guangdongensis*, but differs from the latter by its more slender petioles (15–25 mm×ca. 1.5 mm vs. 5–15 mm× 1.8–2.2 mm), leaf blades with glabrescent abaxial surface (vs. persistently reddish brown sericous) and more and longer stamens (77–100 vs. 50–70 in number, 2.0–2.3 cm vs. 1.1–1.5 cm) with white filaments (vs. purplish red) and much shorter anther connectives (ca. 0.2 mm vs. ca. 1 mm)[5].

Additional specimens examined (paratypes): China, Guangdong: Taishan City, Beifeng Mountain, 22 August 2018, N. H. Xia et al. TYH-1720 (IBSC).

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