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越南拟单性木兰属一新组合

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摘要: 粗壮光叶拟单性木兰(*Magnolia nitida* var. *robusta*)被转移到拟单性木兰属(*Parakmeria*), 升级为种的等级。它与光叶拟单性木兰不同, 特征是: 长叶片, 长叶柄, 雌蕊短于雄蕊, 花两性或雄性, 被片乳白色, 附属物尖 (3 ~ 3.5 mm)。

关键词: 木兰科; 拟单性木兰属; 光叶拟单性木兰; 新组合; 越南

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A New Combination of *Parakmeria* (Magnoliaceae) from Vietnam

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Abstract: *Magnolia nitida* var. *robusta* B. L. Chen & Nooteboom is elevated to species rank and transferred to the genus *Parakmeria* Hu & W. C. Cheng as *Parakmeria robusta* (B. L. Chen & Nooteboom) Q. N. Vu & N. H. Xia. It differs from *P. nitida* (W. W. Smith) Y. W. Law by having larger leaves, longer petioles, gynoecium hidden by the androecium (vs. exceeding from the androecium), flowers bisexual and male (vs. bisexual), tepals cream white (vs. yellow), and connective appendage ca. 0.3-0.5 mm (vs. 3-3.5 mm).

Key words: Magnoliaceae; *Parakmeria; Parakmeria robusta*; New combination; Vietnam

The genus *Parakmeria* was established in 1951 by Hu & W. C. Cheng[1] based on a single species *P. omeiensis*. Today it is considered to include 5 species[2]: *P. kachirachirai* (Kanehira & Yamaoto) Y. W. Law, *P. lotungensis* (Chun & C. H. Tsoong) Y. W. Law, *P. nitida* (W. W. Smith) Y. W. Law, *P. omeiensis* W. C. Cheng, *P. yunnanensis* Hu and distributed from China, Myanmar and Vietnam. The genus is mainly characterized by trees glabrous, twigs densely noded and bamboo nodelike, terminal vegetative buds dehiscing into 2 valves, young leaves open in bud, stipule free from petiole, tepals 9-12, anthers introrsely dehiscent, carpels connate when developed, ovules 2 per carpel, mature carpels woody, dehiscing along dorsal sutures and apex[1-4].

Magnolia nitida var. *robusta* was described in 1993 by B. L. Chen & Nooteboom[5]. It was treated as a variety of the species *Magnolia nitida*, together with another 2 varieties of *M. nitida* var. *nitida* and *M. nitida* var. *lotungensis* (Chun & C. T. Tsoong) B. L. Chen & Nooteboom. In their work 'Notes on Magnoliaceae III: The Magnoliaceae of China', the

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section *Gynopodium* Dandy consisted of 3 species, i.e. *M. nitida*, *M. kachirachirai* and *M. omeiensis*, and reduced *M. yunnanensis* as a synonym of *M. nitida*. *M. nitida* is and barely distinguished from the other two species by their vegetative characters, but unfortunately they were unable to see enough materials, especially collections with flowers[5].

Xia[4] and Xia et al.[2] reinstated the genus *Parakmeria* with 5 species above, but treated *Magnolia nitida* var. *robusta* as synonym of *Parakmeria nitida*. By examining all available *Parakmeria*'s specimens in BM, IBSC, K, P, SYS, including the type Poilane 31039 of *Magnolia nitida* var. *robusta* and additional collections from recent field trips, a combination, *Parakmeria robusta* (B. L. Chen & Nooteboom) Q. N. Vu & N. H. Xia (Plate I) from Bi Dup-Nui Ba National Park, Southern Vietnam, is proposed herein. This species is not only allopatric[6] from *P. nitida* but it also differs from the latter by having larger leaves, longer petioles, gynoecium hidden by the androecium (vs. exceeding from the androecium), flowers bisexual and male (vs. bisexual), tepals cream white (vs. yellow) and connective appendage ca. 0.3–0.5 mm (vs. 3–3.5 mm).

Parakmeria robusta (B. L. Chen & Nooteboom) Q. N. Vu & N. H. Xia, stat. et comb. nov. Plate I

Magnolia nitida var. *robusta* B. L. Chen & Nooteboom. Ann. Missouri Bot. Gard. **80**: 1016. 1993. TYPE: Annam, Massif de Bi-doup, 17 Oct. 1940, alt. 2000 m, Poilane 31039 (holotype: P!).

Tree 25–35 m tall, to 1 m in diam., with bisexual and male flowers, glabrous, aromatic; trunks straight, cylindrical; barks longitudinally irregularly fissured; abaxial leaves, petioles and twigs glaucous when young; young twigs robust, 4–6 mm in diam., becoming stouter, quite rough by having scars of fallen petioles and annual stipules, dull olive-brown when old; terminal buds ovoid to ovoid-ellipsoid, 1–1.3 cm × 2–3 cm. Stipules free from the petiole. Leaves not leathery, fragrant when easily crushed, rigid; leaf margin slightly recurved. Leaf blade ovate-elliptic to ovate or sometimes obovate, 12–21 cm × 5.5–7 cm, adaxially deep green and glossy, abaxially greenish; apex obtuse to acute, base cuneate to broadly cunneat, gradually attenuate into lateral petiole. Nerves visible and prominent on both sides, secondary veins 14–17, reticulation coarse, prominent on both sides when dry. Petioles ± flat, (2.5–)3.5–5.5 cm long, 0.6–1 cm thickened toward the base, without stipular scar. Flower bud ovoid to ellipsoid, 1–1.5 cm × 2.5–3 cm; spathaceous bract 1, cream white. In the male flower, peduncle 10–13 mm × 6–7 mm, pedicle absent; scars of perianth and stamens ca. 10 mm × 6 mm. In the bisexual flower, peduncle ca. 4 mm × 6 mm, pedicle ca. 2 mm long; tepals 12, cream white, fragrant, spoon-shaped, subequal but gradually smaller inward, fleshy and tapering toward the base; outermost 3 much larger than the inner ones, ca. 2.5–3 cm × 1.5–2 cm; stamens 1.2–1.5 cm long, white or sometimes red on filaments, connective appendage ca. 0.3–0.5 mm, filaments ca. 1.5–2 mm long, anthers introrsely dehiscent; gynoecium ellipsoid-ovoid, greenish, ca. 1.3–1.5 cm × 1–1.2 cm, almost hidden by the androecium, gynophore 3–4 mm long, styles ca. 5 mm long, stigmas curved, ovules 2 per carpel. Fruiting peduncle ca. 0.7–1.2 cm × 0.5–1 cm, pedicle ca. 5 mm long, fruiting gynophore and scars of perianth and stamens 1–1.3 cm × 0.6–1 cm. Fruits aggregate, ovoid to ovoid-oblong, 4.5–10 cm × 3–5 cm, ripe carpels thick, 13–25, green or reddish, dehiscing along dorsal sutures and apex. Seed(s) 1–2 per carpel, compressed, ca. 10 mm × 8 mm; testa scarlet.

Distribution and ecology: S Vietnam. Lam Dong Prov. (Bi Dup-Nui Ba National Park) and Thua Thien Hue Prov. (Mt. Bach Ma). Growing commonly in green broad-leaved forest, at altitute between 1400–2000 m. Flowering: Apr.–May; fruiting: Sep.–Oct.

Note: The specimen from Guangxi, China (W. T. Tsang 24463) bearing smaller leaves and without any flowers or fruits was misidentified as *Magnolia nitida* var. *robusta* B. L. Chen & Nooteboom[5]. In fact, it is *P. nitida* as identified by Xia[4]. Two specimens J. E. Vidal 1034A (P) (Thua Thien Hue Prov., Mt. Bach Ma, 7 Nov. 1949, alt. 1500 m) and Poilane 27693 (P)

(Thua Thien Hue Prov., Mt. Bach Ma, 9 Sep. 1938, alt. 1400–1500 m) bearing only leaves probably belong to this species.

Additional specimens examined:

P. robusta:

VIETNAM. Poilane 27693 (P) (Thua Thien Hue Prov., Mt. Bach Ma, 9 Sep. 1938, alt. 1400–1500 m), Nam 11209.20, Nam 31209.14 (IBSC, VFU) (Lam Dong Prov., Bi Dup-Nui Ba NP., TK 90, Giang Ly Forest Station, alt. 1518 m), TVT s.n. (IBSC) (Lam Dong Prov., Bi Dup-Nui Ba NP.), J. E. Vidal 1034A (P) (Thua Thien Hue Prov., Mt. Bach Ma, 7 Nov. 1949, alt. 1500 m).

P. nitida:

MYANMAR. George Forest 29704 (BM) (NE Burma, in heavy forest on the N'Maikha-Salwin divide, Jun. 1931, 26°30′N, alt. 9000–10000 ft.), George Forest 26509 (BM, IBSC, P, K) (NE Burma, N'Maikha, Apr. 1925, 26°20′N, 98°48′E, alt. 8000 ft.), George Forest 27537 (K) (NE Burma, Nov. 1925), F. Kingdon Ward 00370 (BM) (Burma, Ngawchang Valley, e. of Htawgaw, 7 Mar. 1939, alt. 2250–2700 m). **CHINA**. Joseph F. Rock 21990 (K) (China, Tibet, Mt. Kenichunpo, eastern and western alopes, Salwin and Irrawady divide, May–Jun. 1932, alt. 11000 ft.), Joseph F. Rock 22457 (K) (China, Tibet, Mt. Kenichunpo, Champutong, upper Salwin River, Oct. 1932, alt. 10000 ft.), George Forrest 15059 (P, K) (China, Yunnan, Mekong-Salween, Nov. 1917, 28°12′N, alt. 10000–11000 ft.), George Forest 17300 (K) (China, Yunnan, Mekong-Salween, Nov. 1918, 28°12′N, alt. 10000–11000 ft.), George Forest 20358 (P) (China, Yunnan, 1920–1921), George Forest 20860 (P) (China, SE Tibet, Tsarong, Salwin-Kiu Chiang divide, Oct. 1921, 28°24′N, 98°24′E, alt. 10000–11000 ft.), George Forest 21616 (P, K) (China, Yunnan, Salwin-Kiu Chiang divide, N. W. of Chamatong, 28°16′N, 98°30′E, alt. 11000–12000 ft.), George Forest 26381 (K) (China, Yunnan, Salwin, May 1925, 25°50′N, 98°45′E, alt. 9000–10000 ft.), George Forest 27735 (K) (China, Tibet, Shwelin-Salwin, Nov. 1926, 25°50′N, 98°48′E, alt. 9000–10000 ft.), Li Daxiao 88032 (IBSC) (China, Yunnan, 13 Oct. 1988), H. T. Tsai 54858 (IBSC) (China, Yunnan, Thang Pa Hsien, 12 Oct. 1933, 1850 m), W. T. Tsang 24463 (IBSC) (China, Guangxi, S. E. of Shang-sze, 1–16 Oct. 1934), Wang Qiwu 66921 (IBSC) (China, Yunnan, Dzung-duei, Champutung, Oct. 1935).

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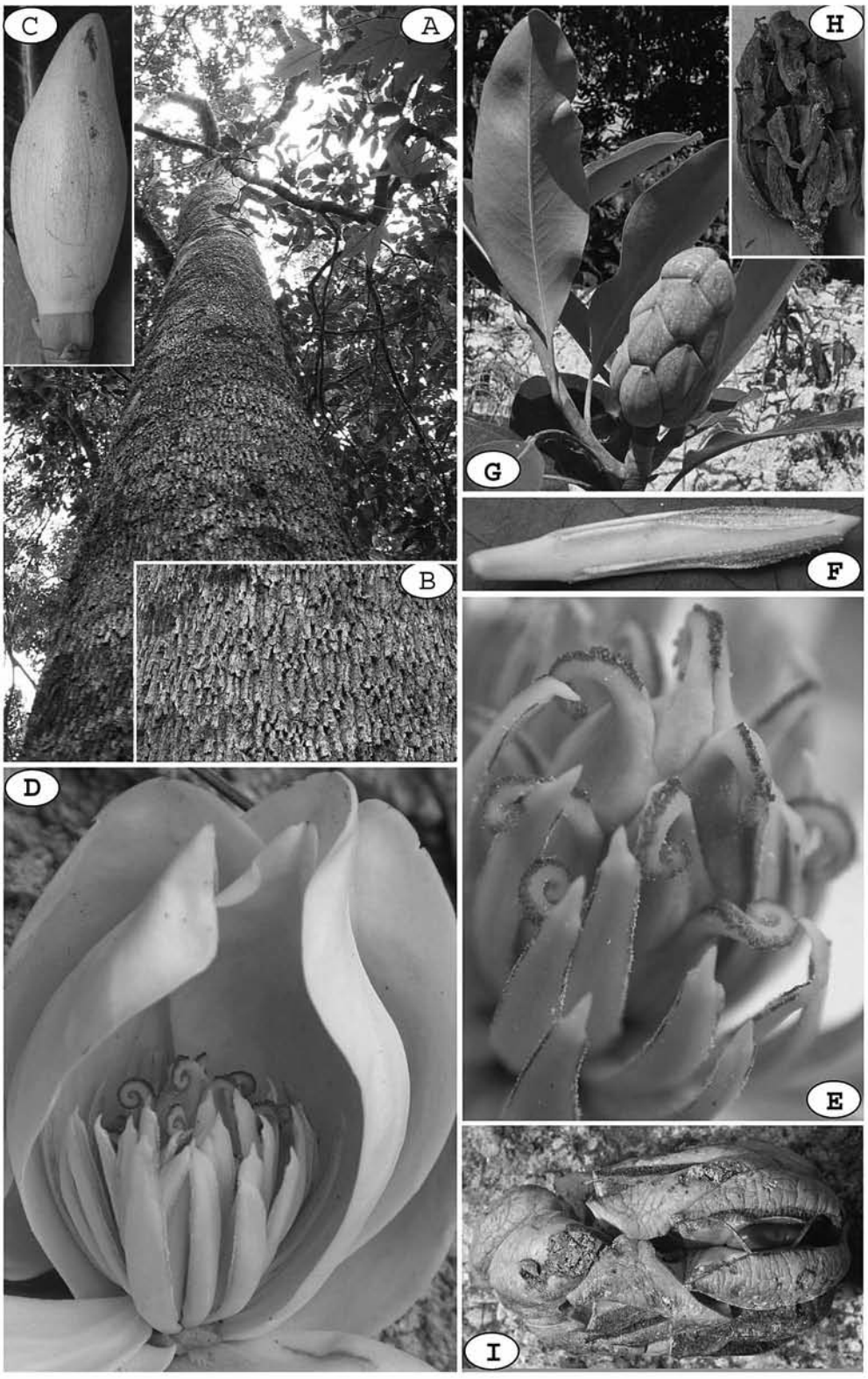

Plate I *Parakmeria robusta* (B. L. Chen & Nooteboom) Q. N. Vu & N. H. Xia

A. Habit; B. Bark; C. Flower bud; D. Flower; E. Androecium and gynoecium; F. Stamen; G. Leaf branch and fruit; H. Ripe fruit with opened carpels; I. Ripe fruit and seed. (Photos: Tran Van Tien, Forest Science Institute of Vietnam).