

越南植物 *Michelia tonkinensis* (木兰科) 的模式考订

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摘要: *Michelia tonkinensis* A. Chev. 这个名称在发表时未指定模式, 曾被处理为 *M. balansae* (Aug. DC.) Dandy 的异名。在查阅了其原白和原始材料后, 确认采自越南北部 Tuyen Quang 省的标本——Fleury 37.667 (P) 是该种唯一的原始材料, 应该作为模式看待, 同时确认 *Michelia tonkinensis* 是一独立的种, 不应该处理为 *M. balansae* 的异名。此外, 还提供了 *M. tonkinensis* 的异名、俗名、描述、分布及查阅的标本等综合信息。

关键词: 模式; 木兰科; 含笑属; *Michelia tonkinensis*; 越南

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Notes on the Type of *Michelia tonkinensis* (Magnoliaceae) from Vietnam

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Abstract: *Michelia tonkinensis* A. Chev. was published without type designation. Its identity could not be determined with certainty for a long time, so it was once placed under synonymy of *M. balansae* (Aug. DC.) Dandy. Based on examination of the original materials and the protologue of *M. tonkinensis*, Fleury 37.667 (P), a collection made from Tuyen Quang Province, northern Vietnam, was confirmed the only original material currently available for this species, and thus should be considered as its type. *Michelia tonkinensis* is found to be distinct from *M. balansae* and should be recognized as an independent species. Comprehensive information of *M. tonkinensis*, including synonymy, vernacular name, description, distribution, and specimens examined is given.

Key words: Type; Magnoliaceae; *Michelia*; *Michelia tonkinensis*; Vietnam

Michelia tonkinensis A. Chev. was described by Chevalier in 1918^[1]. In the protologue, he did not cite any specimens. All the information he gave about the species is: “NOMS INDIGÈNES: Giôï (annam.), Mo dâm deng (mán). DIMENSIONS: Arbre de 12 à 18 mètres de hauteur. Billes de 5 à 9 mètres de longueur et de 0 m 30 à 0 m 50 de diamètres. Aubier et coeur non différenciés. PROPRIÉTÉS: Bois d'un blanc-grisâtre, à

grain fin, assez fivieux, moyennement dense, se polissant bien. USA GÈS: Colonnes, lits de camp, armoires, tables, bancs, planches pour sampans, chevrons, cercueils. PRIX: 12 à 18 piastres le mètres cube.-Un cercueil: 10 piastres. DISTR. GÉOGR.: Paraît très clairsemé au Tonkin: Tuyen Quang”. From this we know that this species has two local names, Giôï (Annam) and Mo dâm deng, and that it is a tree 12 m

to 18 m high, with its trunk 5 m to 9 m long and 30–50 cm in diameter, and heartwood and sapwood not differentiated, and that the species is rare in Tonkin, at that time known only from Tuyen Quang.

In the same publication mentioned above, Chevalier also described another new species, *Talauma gioi* A. Chev. The information he gave on this species is as follows: “*NOMS INDIGÈNES: Gioi (annam).* *DIMENSIONS: Arbre de 12 à 15 mètres de haut-Billes de 5 à 8 mètres pouvant atteindre 0 m 45 à 1mètres de diamètres.* *PROPRIÉTÉS: Bois de couleur jaune clair ou jaune-tendre, légèrement gris au coeur. Le grain est fin et uni; les fibres droites. Bois léger, facile à travailler, se refendant facilement, prenant un beau poli.* *USAGES: Très recherché par les indigènes pour la confection des cercueils, charpentes et menuiseries, meubles indigènes; peut être employé pour la confection de portes de montants de fenêtres (d’après BORDENEUVE et E. JEAN).* *DISTR. GÉOGR.: commun en Annam, dans le Thanh Hoa, le Nghe An sur les frontières du Laos. Paraît très rare au Tonkin où nous ne l’avons pas rencontré, mais seulement le Michelia citée plus loin porte le même nom indigène.* *PRIX: 12 à 18 piastres le mètres cube*”. From this we know that this species has the same local name as *M. tonkinensis*, Giôi (Annam), and that it is a tree 12 m to 15 m high, with its trunk 5 m to 8 m long and 45 cm in diameter, and that the species is also rare in Tonkin, but common in the central part of Vietnam, including Thanh Hoa and Nghe An. In 2003, this species was transferred to *Michelia* as a new combination, i.e. *M. gioi* (A. Chev.) Sima & Hong Yu^[2].

Gagnepain^[3], in the “Supplément a la Flore Générale de L’Indo-Chine”, noted that “*Mich. tonkinensis* A. Chev. in Bull. éc. Indochine (1918) XXI, p. 792, n’a jamais été décrit; il est totalement inconnu de moi. Un éch. de Petélot qui porte ce nom est certainement *M. balansae*”, meaning “*M. tonkinensis*

A. Chev. in Bull. éc. Indochine (1918) XXI, p. 792, has never been described; it is totally unknown to me. A specimen of Petélot which bears this name is certainly “*M. balansae*”. In their “Notes on Magnoliaceae III. The Magnoliaceae of China”, Chen and Nooteboom^[4] placed *M. tonkinensis* under synonymy of *M. balansae* and noted that no specimen of *M. tonkinensis* was preserved in Chevalier’s herbarium. This treatment was followed by Xia et al.^[5].

When examining specimens at P in April 2010, we found two collections bearing the name *Michelia tonkinensis*. Both were collected from the same locality as given in the protologue of this species, i.e. Tuyen Quang. One of these two collections, Fleury 37.667 (Fig. 1A), includes four sheets, respectively with barcode numbers of P00205364, P00205365, P00205366 and P00205367, and all with the same collection date of 1st May 1918. These specimens all bear vegetative branches and young fruits. Their *determinavit* labels were handwritten by Chevalier. The other collection, leg. ign. 3.548, includes two sheets, respectively with barcode numbers of P00205095 and P00205096, and with the collection date of June 1925. These specimens bear vegetative branches and unripe fruits. Careful examination of these specimens has shown that the latter collection, i.e. leg. ign. 3.548 (Fig. 1B), with the young twigs, petioles, leaf blade abaxial surface, brachyblast, and fruits all densely ferruginous brown, perfectly matches the type (Balansa 3886, P, K, L) and the descriptions of *Michelia balansae*^[6–8]). From this fact it seems to be somewhat correct to place *M. tonkinensis* under synonymy of *M. balansae*, as done by Chen and Nooteboom^[4], and Xia et al.^[5]. However, this collection, as mentioned above, was made in June 1925, seven years later after the publication of *M. tonkinensis*. It is clear, therefore, that this collection does not represent the original material of *M. tonkinensis*, and only the collection Fleury

37.667, which was made in May 1918, can be considered as the original material currently available for the species, and thus should be considered as its type.

Our morphological comparison has shown that the type specimen of *M. tonkinensis* perfectly matches those of *M. gioi* (Service forestier 38204, P), *M. hypolampra* Dandy^[9] (Fleury in Chevalier 30158, P, K), and *M. hedyosperma* Y. W. Law^[10] (L. Z. Jia & X. L. Feng 6054, IBSC) in all of the important characters, such as the leaf blade obovate to elliptic-obovate, 6–13 cm × 5–5.5 cm, glabrous on both sides, secondary veins 8–10 on each side of midvein, and carpels 9–10. These species should thus be treated as being conspecific. As *M. tonkinensis* and *Talauma gioi* (= *M. gioi*) were published in the same publication, according to the International Code of Botanical Nomenclature (Art. 11.5)^[11], these two names are of the same priority. Considering that *M. tonkinensis* is a name widely used in Vietnam^[12–13], we here therefore choose *M. tonkinensis* as the name of the plant in question.

Michelia tonkinensis A. Chev. in Bull. Econ. Indochine **21**: 792. 1918; H. H. Pham, Ill. Fl. VIE. **1**: 296. 1991. Ill. Fl. VIE. **1**: 241. 1999^[12]; T. B. Nguyen in Checklist Pl. Sp. VIE. **2**: 15. 2003^[13]. TYPE: Vietnam, Tuyen Quang Prov., Reserve Forestiere de hũi lả, 1 May 1918, Fleury 37.667 (P).

Michelia gioi (A. Chev.) Sima & Hong Yu, Seed Pl. Honghe Reg. SE Yunnan. 55. 2003^[2]; Xia et al. in Fl. China **7**: 89. 2008; Q. N. Vu in Vietnam J. For. Sci. **1**: 826. 2009. — *Talauma gioi* A. Chev. in Bull. Écon. Indochine, **21**: 790. 1918. TYPE: Service forestier 38204 (HT: P!). [‘gioii’].

Michelia hypolampra Dandy in J. Bot. **66**: 321. 1928; Gagnep. in H. Humbert, Suppl. Fl. Indo-Ch. **1**: 51. 1938; H. H. Pham, Ill. Fl. VIE. **1**: 294. 1991, Ill. Fl. VIE. **1**: 239. 1999, T. B. Nguyen in Checklist Pl. Sp. VIE. **2**: 13. 2003[11]. — *Magnolia hypolampra* (Dandy) Figlar in Proc. Internat. Fam. Magnoliaceae: **22**. 2000. TYPE: Vietnam. 8 May 1914, Fleury in Chevalier 30158 (HT: P!;

IT: K!).

Michelia hedyosperma Y. W. Law in Bull. Bot. Res. **5**(3): 123. 1985; Law in Fl. Reip. Pop. Sin. **30**(1): 173. 1996; Law et al., Magn. China: 274. 2004. TYPE: China. Guangxi, Longzhou, Daqingshan, L. Z. Jia & X. L. Feng 6054 (HT: IBSC!).

Vern.: Gioi an hat, gioi Annam, gioi so pai (Gia Lai)
Trees, ca. 20 m tall, ca. 20–25 cm in diam. Bark grey, smooth; buds, young petioles, brachyblasts, flower buds, and carpels appressed short sericeous to glabrous. Twigs black turning pale brown when old, sparsely scattered with lenticels. Stipule free from petiole. Petiole 1–1.7 cm long, slightly furrowed adaxially; leaf blade small to medium, obovate to elliptic-obovate, 6–13 cm × 5–5.5 cm, thinly leathery, with *Illicium* odor when crushed, both surfaces freshly green, slightly glossy, and glabrous; base broadly cuneate, apex obtuse with ca. 2–5 mm long acumen; secondary veins 7–10 on each side of midvein and prominent on both surfaces, reticulate veins slender, dense, and prominent on both surfaces. Peduncle 4–5 mm long, pedicle 1–1.5 mm long, spathaceous bracts 2; flowering buds ellipsoid, 3–4.5 cm × 1.5–2 cm. Flower very fragrant, yellow. Tepals 9, 3 outer tepals oblong-elliptic, ca. 3.5 cm × 1.5 cm, greenish to yellow outside, inner ones obovate, membranous, ca. 2.5–3.7 cm × 1.0–1.5 cm, innermost ones linear, ca. 1.7 cm × 0.4 cm; stamens 11–12 cm long, filaments 2–3 mm long, connective exerted and forming ca. 2 mm long triangular appendages, anthers laterally dehiscent. Gynoecium yellowish to green, glabrous, ovoid, capels few, 7–10, becoming very separate in developed fruit, narrowly ellipsoid, abaxially ridged, styles ca. 2 mm, recurved; ovules 6–8 per carpel; gynophore 4–6 mm long, 2–3 cm in fruit; scar of perianth and stamens ca. 4 mm long. Mature carpels 2–7, grayish black, ellipsoid, 2.5–3.5 cm × 1.5–2.5 cm, densely lenticellate, base shrunken into 5–10 mm stalks, apex mucronate, valves thick, reflexed when matured, exposing white endocarp. Seeds 1–4 per carpel, red. Fl. Mar.–Apr., fr. Sept.–Oct.

Distribution and ecology: Vietnam Tuyen Quang, Yen Bai, Phu Tho, Ninh Binh, Nghe An,

Thanh Hoa, Ha Tinh, Thua Thien Hue, Quang Tri Provinces. Also in China (SW Guangxi, Hainan, S Yunnan). In forest, at 33–650 m alt.

Notes: A remarkable species by its normally less than 10 carpels per gynoecium, ellipsoid and ca. 3–7 developed carpels. Seeds used for spice and medicine. It is listed in Red Data Book of Vietnam (2007) as VU A1c.

Specimens examined: VIETNAM. **Gia Lai:** Kbang, Kon Ha Nung, 21/1/2011, Nam 210111.5 (IBSC, VNF). **Ha Tinh:** Huong Son, Rao An, 18/1/2011, Nam 180111.7 (IBSC, VNF). **Nghe An:** Vinh, Co Ba (Ke Nhe), 8/5/1914, Chevalier 30.158 (P); Vinh, Ke Nhe, /9/1917, Donnat 38.185 (P); Qui Chau, Chuot Bach, 12/11/1963, leg.ign. 41 (1588) (FIPI); Qui Chau, Ke Can, 18/12/1962, Pham Nguyen Lan 5785 (FIPI). **Ninh Binh:** Nho Quan,

Cuc Phuong, 30/1/1975, leg.ign. 8807 (HN); Nguyen Manh Cuong NMC 1338, 1393 (CPNP); Cuc Phuong (gan cay cho chi), 1/8/1966, Tran Dinh Ly 0498 (CPNP); Cuc Phuong, Ky Phu, Ao Luon, 2/5/1970, Trinh Dinh Thanh 0044a (CPNP); Cuc Phuong, duong di den Cay cho chi 1000 nam tuoi, 27/11/1980, Vu Van Dung 4 (FIPI). **Phu Tho:** Cau Hai, 15/4/1965, Nie-Cun (Khoa 5) s.n. (VNF). **Quang Tri:** Lang Tram, 15/8/1938, Poilane 27547 (P); Lang Vay, 3/4/1920, Poilane 1293 (K, P, VNM); 3/10/1936, Poilane 30086 (P). **Thanh Hoa:** Lam Kinh, Xuyen 109 (HN); Xuyen 108 (HN). **TT Hue:** Nam Dong, Vung Tron, 10/3/1980, leg.ign. s.n. (HN). **Tuyen Quang:** RF de Hui la, 1/5/1918, Fleury 37.667 (P, VNM). Yen Bai: Hao Gia, 3/1932, Pham Ngoc Dung 17B/73T (VNM). locality: ign., leg.ign. 8617 (HN); locality: ign., leg.ign. 23 (VNF).



Fig. 1 A. *Michelia tonkinensis* A. Chev. Vietnam, Tuyen Quang Province, Reserve Forestiere de hui lã, 1/5/1918, Fleury 37.667 (P) (type); B. *M. balansae* (Aug. DC.) Dandy. Vietnam, Tuyen Quang Province, 6/1925, leg. ign. 3.548 (barcode: P00205096) (P).

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