
New Combinations in Chinese *Pittosporum* (Pittosporaceae)

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ABSTRACT. As part of a revision of Chinese *Pittosporum* Banks ex Gaertner for the forthcoming account of Pittosporaceae in the *Flora of China*, Volume 9, it is necessary to publish seven new combinations. All of the taxa were originally described at specific rank. Six are morphologically similar to five other species, under which they are reduced to varieties: *Pittosporum balansae* Aug. DC. var. *chatterjeeanum* (Gowda) Zhi Y. Zhang & Turland, comb. et stat. nov., *Pittosporum glabratum* Lindley var. *wenxianense* (G. H. Wang & Y. S. Lian) Zhi Y. Zhang & Turland, comb. et stat. nov., *Pittosporum kweichowense* Gowda var. *buxifolium* (K. M. Feng ex C. Y. Wu) Zhi Y. Zhang & Turland, comb. et stat. nov., *Pittosporum kweichowense* var. *podocarpifolium* (C. Y. Wu) Zhi Y. Zhang & Turland, comb. et stat. nov., *Pittosporum podocarpum* Gagnepain var. *hejiangense* (H. Y. Su) Zhi Y. Zhang & Turland, comb. et stat. nov., and *Pittosporum rehderianum* Gowda var. *ternstroemioides* (C. Y. Wu) Zhi Y. Zhang & Turland, comb. et stat. nov. The remaining new combination is *Pittosporum pentandrum* (Blanco) Merrill var. *formosanum* (Hayata) Zhi Y. Zhang & Turland, comb. nov., which is the correct name at varietal rank under *P. pentandrum* when *P. formosanum* Hayata var. *formosanum* and variety *hainanense* Gagnepain are considered to be synonyms.

Key words: China, Pittosporaceae, *Pittosporum*.

As part of a revision of Chinese *Pittosporum* Banks ex Gaertner for the forthcoming account of Pittosporaceae in the *Flora of China*, Volume 9 (Zhang et al., in press), all names described in this family based on Chinese types were carefully evaluated. It was decided that seven new combinations were necessary: six of them originally described as species, here reduced to varietal rank, and the seventh the correct name for a variety where an au-

tonym has priority over the varietal epithet currently in use.

1. *Pittosporum balansae* Aug. DC., Bull. Herb. Boissier, sér. 2, 4: 1071. 1904.

1a. *Pittosporum balansae* var. *chatterjeeanum* (Gowda) Zhi Y. Zhang & Turland, comb. et stat. nov. Basionym: *Pittosporum chatterjeeanum* Gowda, J. Arnold Arbor. 32: 318. 1951. TYPE: "Burma: Kang-fang" [actually China. Yunnan: Tengchong Xian, Gangfang], 1500 m, thickets along river banks, "4-XIII-1938" [sic!], *Kingdon Ward 75* (holotype, A).

Pittosporum chatterjeeanum is sufficiently similar morphologically to *P. balansae* to be conspecific. It differs in having lanceolate leaves 1–3.5 cm wide, vs. oblong leaves 2–5 cm wide in *P. balansae* var. *balansae* and narrowly lanceolate leaves 1–1.5 cm wide in *P. balansae* var. *angustifolium* Gagnepain. Therefore, treating *P. chatterjeeanum* as a variety of *P. balansae* is appropriate. Both *P. balansae* var. *balansae* and variety *angustifolium* occur in western Guangdong, southwestern Guangxi, and Hainan, as well as in Vietnam, while variety *chatterjeeanum* is disjunct from the other varieties, growing in western Yunnan (Tengchong Xian) and adjacent northern Myanmar.

2. *Pittosporum glabratum* Lindley, J. Hort. Soc. London 1: 230. 1846.

2a. *Pittosporum glabratum* var. *wenxianense* (G. H. Wang & Y. S. Lian) Zhi Y. Zhang & Turland, comb. et stat. nov. Basionym: *Pittosporum wenxianense* G. H. Wang & Y. S. Lian, Acta Phytotax. Sin. 34: 210. 1996. TYPE: China. Gansu: Wen Xian, Bikou, 1100 m, 16 Aug. 1993, Y. S. Lian et al. 93-432 (holotype, NWTC not seen).

From its original description, *Pittosporum wenxianense* is sufficiently similar morphologically to *P. glabratum* to be conspecific. It differs in having leaves obovate to narrowly obovate, with a truncate to obtuse apex, vs. leaves oblong, oblanceolate, narrowly lanceolate, or beltlike, with an acute apex, in both *P. glabratum* var. *glabratum* and *P. glabratum* var. *neriifolium* Rehder & E. H. Wilson. Therefore, treating *P. wenxianense* as a variety of *P. glabratum* is appropriate. *Pittosporum glabratum* var. *glabratum* occurs in Fujian, Guangdong, Guangxi, Guizhou, Hainan, and Hunan, as well as in Vietnam, while variety *neriifolium* has a similar range, occurring also in Hubei, Jiangxi, and Sichuan, but is not yet known in either Hainan or Vietnam. *Pittosporum glabratum* var. *wenxianense* is known only from southern Gansu (Wen Xian), which is at the northern edge of the distribution of *Pittosporum* in China.

3. *Pittosporum kweichowense* Gowda, J. Arnold Arbor. 32: 296. 1951.

3a. *Pittosporum kweichowense* var. *buxifolium* (K. M. Feng ex C. Y. Wu) Zhi Y. Zhang & Turland, comb. et stat. nov. Basionym: *Pittosporum buxifolium* K. M. Feng ex C. Y. Wu, Fl. Yunnan. 3: 318. 1983. TYPE: China. Yunnan: Xichou Xian, 26 Sep. 1947 (fr), K. M. Feng 12083 (holotype, KUN not seen).

3b. *Pittosporum kweichowense* var. *podocarpifolium* (C. Y. Wu) Zhi Y. Zhang & Turland, comb. et stat. nov. Basionym: *Pittosporum podocarpifolium* C. Y. Wu, Fl. Yunnan. 3: 318. 1983. TYPE: China. Yunnan: Funing Xian, foot of limestone mountain, 11 Apr. 1940 (fl), C. W. Wang 88305 (holotype, KUN not seen).

From their original descriptions, *Pittosporum buxifolium* and *P. podocarpifolium* are sufficiently similar morphologically to *P. kweichowense* to be conspecific. *Pittosporum buxifolium* differs in having obovoid capsules, vs. cylindrical capsules in *P. kweichowense*, while *P. podocarpifolium* differs in having lanceolate leaves 0.5–0.8 cm wide, vs. narrowly oblong leaves 1–2.2 cm wide in *P. kweichowense*. Therefore, treating *P. buxifolium* and *P. podocarpifolium* as varieties of *P. kweichowense* is appropriate. *Pittosporum kweichowense* var. *kweichowense* occurs in southwestern Guizhou (Anlong Xian), western Hunan (Zhijiang Xian), and southeastern Yunnan (Wenshan Xian), while both variety *buxifolium* and variety *podocarpifolium* are known only from southeastern Yunnan (Guangnan Xian and Xichou Xian, and Funing Xian, respectively).

4. *Pittosporum pentandrum* (Blanco) Merrill, Bur. Gov. Lab. (Manila) 27: 19. 1905. Basionym: *Aquilaria pentandra* Blanco, Fl. Filip. 373. 1837.

4a. *Pittosporum pentandrum* var. *formosanum* (Hayata) Zhi Y. Zhang & Turland, comb. nov. Basionym: *Pittosporum formosanum* Hayata, in Matsumura & Hayata, J. Coll. Sci. Imp. Univ. Tokyo 22: 32. 1906. TYPE: China. Taiwan: “Kaisa et kiko,” 23 Nov. 1896, C. Owatari s.n. (syntype, TI); “Takaw,” without date, A. Henry 52 (syntype, TI); “Reigaryo,” 31 Feb. 1898, C. Owatari s.n. (syntype, TI).

Pittosporum formosanum Hayata var. *hainanense* Gagnepain, in Lecomte, Fl. Indo-Chine 1: 238. 1909. *Pittosporum pentandrum* var. *hainanense* (Gagnepain) H. L. Li, J. Wash. Acad. Sci. 43: 45. 1953. TYPE: Vietnam: “rapides de Bac-ninh, Quang-yen,” without date, Balansa s.n. (syntype, P not seen); “vers Ninh-binh,” without date, Bon s.n. (syntype, P not seen).

When *Pittosporum formosanum* var. *formosanum* and variety *hainanense* are considered to be synonyms (the view adopted by the present authors), the correct name for this taxon at varietal rank under *P. pentandrum* is variety *formosanum*. Chang and Yan (1979: 35) adopted the same taxonomy, but were incorrect to use the combination *P. pentandrum* var. *hainanense* because the autonym, *P. formosanum* var. *formosanum*, was established simultaneously with variety *hainanense* and has priority under Article 11.6 of the *Saint Louis Code* (Greuter et al., 2000). Hatusima (in Hatusima & Amano, 1994: 74) published the combination *P. pentandrum* var. *formosanum*, but invalidly because no basionym was cited (Art. 33.3).

Pittosporum pentandrum var. *formosanum* occurs in southern Guangxi (Hepu Xian), Hainan, and southern Taiwan (including Lan Yu), as well as in Vietnam.

5. *Pittosporum podocarpum* Gagnepain, Notul. Syst. (Paris) 8: 211. 1939.

5a. *Pittosporum podocarpum* var. *hejiangense* (H. Y. Su) Zhi Y. Zhang & Turland, comb. et stat. nov. Basionym: *Pittosporum hejiangense* H. Y. Su, Bull. Bot. Res., Harbin 4(4): 201. 1984. TYPE: China. Sichuan: Hejiang Xian, Fubao-qu, Qilong Commune, 75 m, 2 Aug. 1977, *Hejiang Expedition 0777* (holotype, YBDC not seen).

From its original description, *Pittosporum hejiangense* is sufficiently similar morphologically to *P. podocarpum* to be conspecific. It differs in having

sparsely puberulent young branches, vs. glabrous branches in both *P. podocarpum* var. *podocarpum* and *P. podocarpum* var. *angustatum* Gowda, and densely brown pubescent branches in *P. podocarpum* var. *molle* W. D. Han. Therefore, treating *P. hejiangense* as a variety of *P. podocarpum* is appropriate. *Pittosporum podocarpum* var. *podocarpum* occurs in Fujian, Gansu, Guangxi, Guizhou, Hubei, Hunan, Shaanxi, Sichuan, southeastern Xizang, and Yunnan, as well as in northeastern India, Myanmar, and northern Vietnam, while variety *angustatum* has a very similar range, occurring also in Guangdong, but as yet unknown in either Xizang or Vietnam. *Pittosporum podocarpum* var. *molle* is known only from southern Fujian (Hua'an Xian) and southern Guizhou (Libo Xian), while variety *hejiangense* is known only from southeastern Sichuan (Hejiang Xian).

6. *Pittosporum rehderianum* Gowda, J. Arnold Arbor. 32: 297. 1951.

6a. *Pittosporum rehderianum* var. *ternstroemioides* (C. Y. Wu) Zhi Y. Zhang & Turland, comb. et stat. nov. Basionym: *Pittosporum ternstroemioides* C. Y. Wu, Fl. Yunnan. 3: 320. 1983. TYPE: China. Yunnan: Longling Xian, foot of mountain, among shrubs, 10 Aug. 1941 (fr), C. W. Wang 90010 (holotype, KUN not seen).

From its original description, *Pittosporum ternstroemioides* is sufficiently similar morphologically to *P. rehderianum* to be conspecific. It differs in

having capsules each with ca. 8 seeds, vs. capsules each with 21–24 seeds in *P. rehderianum*. Therefore, treating *P. ternstroemioides* as a variety of *P. rehderianum* is appropriate. *Pittosporum rehderianum* var. *rehderianum* occurs in southeastern Gansu, western Hubei, southern Shaanxi, and western Sichuan, whereas variety *ternstroemioides* is disjunct, known only from western Yunnan (Longling Xian).

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