

A new combination and typifications in *Morinda* (Rubiaceae) for the Flora of Thailand

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ABSTRACT

Morinda talmyi is a new combination proposed here for *M. persicifolia* var. *talmyi*. *Morinda pandurifolia* is confirmed as a synonym of *M. persicifolia*. Lectotypes for *Morinda angustifolia* var. *scabridula*, *M. longifolia*, *M. nana*, *M. pandurifolia* var. *tenatifolia*, *M. persicifolia* var. *talmyi*, *M. pumila* and *M. scabrida* are designated here.

KEYWORDS: ICN, lectotype, Morindeae, synonymy, taxonomy.

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INTRODUCTION

Morinda L. is a genus in the family Rubiaceae with a nearly pantropical distribution and ca 40 species (Razafimandimbison & Bremer, 2011). Most species occur in primary and secondary forests and open scrub, and *Morinda citrifolia* L. is widely cultivated.

In preparation for the upcoming Rubiaceae volumes in the Flora of Thailand, nine species were recognized in a recent publication (Kesonbua & Chantaranothai, 2013), and updates to this publication are presented here. *Morinda pandurifolia* Kuntze is now placed in synonymy under *M. persicifolia* Buch.-Ham., in agreement with the World Checklist (Govaerts *et al.*, 2019). *Morinda persicifolia* var. *talmyi* Pit. (*M. talmyi* Pierre ex Pit., **nom. inval. pro syn.**) is different from *M. persicifolia* and raised to species level, requiring a new combination name. In addition, lectotypes are proposed in accordance with the International Code for Nomenclature (ICN; Turland *et al.*, 2018), especially Articles 9.6, 9.12 and 9.17. All type specimens cited have been seen or high-resolution images were obtained from A, BM, K, NY and P (herbarium acronyms follow Thiers (2019, continuously updated).

TAXONOMY

Morinda talmyi (Pit.) Chantar., **comb. et stat. nov.**

— *M. persicifolia* Buch.-Ham. var. *talmyi* Pit. in

Lecomte, Fl. Indo-Chine 3: 426. 1924. Type: Cambodia. Kampot (Banteay Meas, misspelled as Bentas Meas), Mt. Can Lan, 1 May 1874, *Pierre 3217* (second-step) lectotype **P** [P04011606], designated here; isolectotypes **A** [A01154971, A01154972], **P** [P04011607, P04011608]).

— *M. talmyi* Pierre ex Pit. in Lecomte, Fl. Indo-Chine 3: 426. 1924, **nom. inval. pro syn.**

Notes.— After re-examination of the type specimens of *Morinda persicifolia* var. *talmyi*, it is apparent they are different from the typical variety in having long narrow and glabrous leaves. Therefore, the new combination at species level is required.

Pitard (1924) described *Morinda persicifolia* var. *talmyi* and cited *M. talmyi* Pierre mss. as a synonym, which, therefore, was not validly published (ICN Art. 36.1). Kesonbua & Chantaranothai (2013) selected *Pierre 3217* at **P** as lectotype but this gathering has three duplicates (P04011606, P04011607, P04011608). The specimen P04011606 has more leaves and inflorescences and is selected here as the second-step lectotype (ICN Art. 9.17).

Morinda angustifolia var. *scabridula* Craib, Fl. Siam. 2: 174. 1934. Type: Thailand. Phitsanulok, Nakhon Thai (Nakawn Tai), 4 Apr. 1924, *Kerr 8907* (lectotype **BK** [BK257401], designated here; isolectotypes **BM** [BM000945408], **K** [K001045999]).

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Morinda nana Craib, Bull. Misc. Inform. Kew 1932: 434. 1932. Type: Thailand, Nakhon Phanom (Nakawn Panom), Ta Uten, 16 Feb. 1924, *Kerr 8461* (lectotype designated here, **BK** [BK257403], isolectotypes **BM** [BM000945395], **K** [K000763796, K000763797]).

Morinda persicifolia Buch.-Ham., Trans. Linn. Soc. London 13: 535. 1832. Type: Myanmar. Pegou (Bago), without date, *Buchanan-Hamilton s.n.* (holotype **BM** [BM000945409]).

— *Morinda pandurifolia* Kuntze, Revis. Gen. Pl. 1: 289: 1891. — *Morinda persicifolia* var. *pandurifolia* (Kuntze) Pit. in Lecomte, Fl. Indo-Chine 3: 426. 1924. Type: Vietnam, Annam, Mar. 1875, *Kuntze s.n.* (holotype **NY** [NY00132275]).

— *M. persicifolia* var. *oblonga* Pit. in Lecomte, Fl. Indo-Chine 3: 426. 1924. — *M. pandurifolia* var. *oblonga* (Pit.) Craib, Fl. Siam. 2: 178. 1934. Syntypes: Thailand, Bangkok, 1859, *Schomburgk 191* (**P** [P04011548]); Laos: Lakône, 1866–1868, *Thorel s.n.* (**P** [P04011541]); Pak-lay, 1866–1868, *Thorel s.n.* (**P** [P04011543]); Cambodia: without locality, without date, Gourgand, Magnein & *Châtillon 535* (**P** [P04011535]); Kampot, Mt. Chironc-porr, prov. de Bentas-méa, May 1874, *Pierre 376* (**P** [P04011552]); Me Kong, Mar. 1870, *Pierre 376* (**P** [P04011551]); rives du fleuve Pursat, Pnom-penh, Mar. 1870, *Pierre 376* (**P** [P04011549]); Pnom-penh, Jan. 1875, *Pierre 376* (**P** [P04011557, P04011559]); ibd., 28 Mar. 1875, *Godefroy s.n.* (**P** [P04011560, P04011563]); Tonlé-sap, 1875, *Anonymous s.n.* (**P** [P04011561]); rives du Mékong, 9 Mar. 1914, *Chevalier 31862* (**P** [P04011545]); Vietnam: Cochinchine, Tây Nuh, Jan. 1866, *Pierre 376* (**P** [P04011538, P04011554]); without locality, 1868, *Baudin s.n.* (**P** [P04011532]); lieux inondés, 1862–1866, *Thorel 629* (**P** [P04011537]); Baria, Aug. 1867, *Talmy s.n.* (**P** [P04011546, P04011547]); Cay-cong, prov. de Tay-ninh, près du Mékong, Bao Chi-ang, prov. de Bien-hao, July 1877, *Pierre 3218* (**P** [P04011533, P04011534, P04011536, P06589782]); prov. de Chaudoc, Aug. 1873, *Harmand s.n.* (**P** [P04011544]).

— *Morinda longifolia* Craib, Bull. Misc. Inform. Kew 1932: 434. 1932. Type: Thailand, Tak (Raheng), 15 Nov. 1920, *Kerr 4577* (lectotype **BK** [BK222257], designated here, isolectotypes, **BM** [BM000945406], **K** [K000763794, K000763795]).

— *Morinda pandurifolia* Kuntze var. *tenuifolia* Craib, Fl. Siam. 2: 179. 1934. Type: Thailand, Surat, Ban Na, 19 Feb. 1930, *Kerr 18124* (lectotype **K** [K000763792], designated here, isolectotypes **BK** [BK257404], **BM** [BM000945405], **K** [K000763793]).

Notes.— Kesonbua & Chantaranothai (2013) accepted *Morinda pandurifolia* as a separate species different from *M. persicifolia*, following Craib (1934). After careful investigation, I have found that the leaves of *M. persicifolia* are variable in shape, being elliptic, lanceolate, oblong and sometimes fiddle-like (pandurate). Most leaves of the type specimen of *M. pandurifolia*, *Kuntze s.n.*, are fiddle-like which is the extreme form of leaf shape observed in this species. The same leaf shape can also occur in other specimens, therefore, *M. pandurifolia* is placed as a synonym of *M. persicifolia* as done by Pitard (1924) and also following the World Checklist of Govaerts *et al.* (2019).

Morinda scabrida Craib, Bull. Misc. Inform. Kew 1932: 435. 1932. Type: Thailand, Kanchanaburi (Kanburi), Baw Noi-Sangkhlaburi, 18 Jan. 1926, *Kerr 10260* (lectotype **K** [K000763790], designated here; isolectotypes **BK** [BK257406], **BM** [BM000945324]).

Morinda tomentosa B. Heyne in Roth, Nov. Pl. Sp.: 147. 1821. Type: India, without locality, without date, *Wight (leg. Rottler) 1321* (**K** [K000031573]).

— *Morinda pumila* Craib, Bull. Misc. Inform. Kew 1932: 435. 1932. Type: Thailand, Chaiyaphum, Pak Pang, 1 Feb. 1931, *Kerr 19981* (lectotype **BK** [BK257405], designated here; isolectotypes **BM** [BM000945393], **K** [K000763791]).

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