

Flora of Singapore precursors, 24: Notes on Theaceae in Singapore

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ABSTRACT. Clarification of the nomenclature of names used for species of Theaceae in Singapore is provided. Lectotypes are designated for *Gordonia multinervis* King, *Gordonia concentricatrix* Burkill, *Gordonia excelsa* Blume var. *sincapuriana* Dyer, *Gordonia grandis* King and *Pyrenaria acuminata* Planch. ex Choisy.

Keywords. *Gordonia*, *Polyspora*, *Pyrenaria*, typification

Introduction

The limits of the family Theaceae have changed over time but the species in Singapore that are now included in this family as defined in APG IV (2016) belong to the genera *Polyspora* Sweet and *Pyrenaria* Blume. All species previously included in the genus *Gordonia* J.Ellis in Asia, including those in Singapore, have now been transferred to *Polyspora* (Orel et al., 2013; Choo et al., 2020). There are four species of Theaceae in Singapore, *Polyspora multinervis* (King) Orel et al., *Polyspora penangensis* (Ridl.) Niissalo & L.M.Choo, *Polyspora singaporeana* (Wall. ex Ridl.) Niissalo & L.M.Choo and *Pyrenaria acuminata* Planch. ex Choisy. Towards an account of the Theaceae for the *Flora of Singapore*, we here clarify some outstanding nomenclatural issues and typifications that affect the names of three of these four species.

Typifications

1. *Polyspora multinervis* (King) Orel, Peter G.Wilson, Curry & Luu, Willdenowia 43(2): 308 (2013). – *Gordonia multinervis* King, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 59(2): 205 (1890); Ridley, Fl. Malay Penins. 1: 203 (1922); Keng, Gard. Bull. Singapore 28: 247 (1976); Keng, Tree Fl. Malaya 3: 286 (1978); Keng, Gard. Bull. Singapore 37: 26 (1984); Keng, Concise Fl. Singapore, vol. 1, Gymn. Dicot. 50 (1990); Turner, Gard. Bull. Singapore 45: 219 (1993); Chong et al., Checkl. Fl. Singapore 46, 183,

215 (2009). – TYPE: [Peninsular Malaysia], Perak, *Scortechini 1968* (lectotype K [K000704260], designated here; isolectotypes G [G00354897], SING [SING0055530, SING0055531, SING0055532]).

Gordonia concentricatrix Burkill, J. Straits Branch Roy. Asiat. Soc. 76: 153 (1917); Cubitt, J. Straits Branch Roy. Asiat. Soc. 78: 49 (1918); Keng, Tree Fl. Malaya 3: 285 (1978). – *Polyspora concentricatrix* (Burkill) Orel, Peter G. Wilson, Curry & Luu, Willdenowia 43(2): 306 (2013). – TYPE: [Peninsular Malaysia], Selangor, Rantau [Bantau] Panjang Reserve, 31 May 1916, *Rawi* [Rani] *CF 878* (lectotype SING [SING0194807], designated here).

Distribution. Peninsular Malaysia, Singapore, Sumatra and Borneo.

Notes. King (1890) cited only one collection, *Scortechini 1968*, for *Gordonia multinervis* King but without mentioning where the material was deposited. We have located five specimens of the collection, in G, K and SING, and designate the most informative specimen at K as the lectotype.

In the protologue of *Gordonia concentricatrix* Burkill, one of the collections cited was *A. Rawi C.F. 898* but this was later changed to *J.D. Watson & Abdul Rani C.F. 878* by Cubitt (1918). Cubitt was likely mistaken as there are two separate collections on the same sheet, both numbered *C.F. 878*, but with different collectors, one of them Rani (incorrectly cited as Rawi by Burkill) and the other Watson. Keng (1984) noted that the ‘type specimen’ in SING consisted of two specimens mounted on the same sheet. We designate the left-hand plant on the sheet, the Rani collection which is separately barcoded, as lectotype.

2. *Polyspora singaporeana* (Wall. ex Ridl.) Niissalo & L.M.Choo, Phytotaxa 458(2): 164 (2020). – *Gordonia singaporeana* Wall. [Numer. List n. 1457 (1829), nom. nud.] ex Ridl., J. Straits Branch Roy. Asiat. Soc. 73: 141 (1916); Burkill, J. Straits Branch Roy. Asiat. Soc. 76: 154 (1917); Ridley, Fl. Malay Penins. 1: 202 (1922); Keng, Tree Fl. Malaya 3: 286 (1978); Keng, Gard. Bull. Singapore 37: 39 (1984); Keng, Concise Fl. Singapore, vol. 1, Gymn. Dicot. 50 (1990); Corner, Wayside Trees Mal., ed. 3, 723 (1988); Turner, Gard. Bull. Singapore 45: 219 (1993); Chong et al., Checkl. Fl. Singapore 46, 183, 215 (2009). – TYPE: Singapore, 1822, *Wallich s.n.* [EIC 1457] (lectotype K [K001113140], designated by Choo et al., Phytotaxa 458(2): 164 (2020)).

Gordonia excelsa Blume var. *sincapuriana* Dyer in Hooker, Fl. Brit. India 1: 291 (1875). – TYPE: Singapore, 1822, *Wallich s.n.* [EIC 1457] (lectotype K [K001113140], designated here and now homotypic with *Gordonia singaporeana* Wall. ex Ridl.).

Gordonia grandis King, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 59: 203 (1890), nom. illeg. non André (1880). – TYPE: [Peninsular Malaysia], Perak, Larut, 500–800 ft [150–245 m], April 1885, *King’s collector 7468* (lectotype K [K001129805], designated here).

Distribution. Peninsular Malaysia and Singapore.

Notes. *Wallich s.n.* [EIC 1457] is a mixed collection. The type of *Gordonia singaporeana* Wall. ex Ridl. designated above, *Wallich s.n.* [EIC 1457] [K001113140], is not from the same gathering as *Wallich s.n.* [EIC 1457] [G00355034]. Ridley, having worked at the Kew Herbarium prior to his publication of *Gordonia singaporeana* in 1916, was likely to have studied the Kew specimen, K001113140, rather than the Geneva specimen, making it more suitable for lectotypification as chosen by Choo et al. (2020).

Gordonia excelsa Blume var. *sincapuriana* Dyer is not the basionym of *Gordonia singaporeana* Wall. ex Ridl. at the rank of species despite the similarity in the names. Ridley (1916) makes no mention of the variety despite referring to *Gordonia excelsa* Blume from the same publication. If it were to be treated as the basionym, the different spelling of the variety would have to be adopted. Instead, Ridley is quite clearly taking up Wallich's original name for the species, albeit with a slightly different spelling (*singaporiana* vs *singaporeana*). Dyer (in Hooker, 1875) cited a number of syntypes for *Gordonia excelsa* var. *sincapuriana* from which we select the Kew specimen K001113140 as lectotype, rendering it homotypic with *Gordonia singaporeana* Wall. ex Ridl. The remaining syntypes cited by Dyer are *Thomson s.n.* from Singapore and *Maingay s.n.* from Malacca.

Gordonia grandis King is a later homonym. We have seen only one specimen that could be original material and select it here as lectotype.

3. *Pyrenaria acuminata* Planch. ex Choisy, Mém. Soc. Phys. Genève 14: 172 (1855); Miquel, Fl. Ned. Ind. 1, fasc. 2: 493 (1859); Hooker, Fl. Brit. India 1: 289 (1875); King & Gamble, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 59: 200 (1890); Ridley, J. Straits Branch Roy. Asiat. Soc. 33: 49 (1900); Ridley, Fl. Malay Penins. 1: 200 (1922); Keng, Gard. Bull. Singapore 28: 247 (1976); Keng, Tree Fl. Malaya 3: 290 (1978); Keng, Gard. Bull. Singapore 33: 270 (1980); Corner, Wayside Trees Mal., ed. 3, 725 (1988); Keng, Concise Fl. Singapore, vol. 1, Gymn. Dicot. 50 (1990); Turner, Gard. Bull. Singapore 45: 219 (1993); Chong et al., Checkl. Fl. Singapore 74, 183, 217 (2009). – *Gordonia* (*Camellia*) *acuminata* Wall., Numer. List. (1831), nom. inval. – TYPE: [Peninsular Malaysia], Penang, 1822, *Wallich s.n.* [EIC 3664] (lectotype K [K000704225], designated here; isotype K-W (incorrectly labelled 3663) [K001110750]).

Distribution. Peninsular Malaysia, Singapore and Sumatra.

Notes. There has been some confusion over the labelling of duplicates of the type collection. *Wallich s.n.* [EIC 3664] [K001110751] in the East India Company Herbarium in Kew is not a duplicate of the lectotype *Wallich s.n.* [EIC 3664] [K000704225] in Kew's general collection and, therefore, not an isotype. The specimen labelled as 3663 in the East India Company Herbarium [K001110750], however, is almost certainly a duplicate of the specimen labelled 3664 in the general collection and is here treated as an isotype.

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