

Flora of Singapore precursors, 34: Typification of names in Singapore Acanthaceae

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ABSTRACT. Nineteen names of Acanthaceae species occurring in Singapore are lectotypified and one name is neotypified.

Keywords. Lectotype, neotype

Introduction

The species of Acanthaceae from Singapore are being revised for the *Flora of Singapore*. In Singapore, 22 native species, 18 introduced species and five species of uncertain origin in 17 genera are recognised. It became clear during the preparation of the account that 21 names had no holotype or lectotype. The aim of this paper is to typify and discuss these names. This work is based on herbarium collections from Peninsular Malaysia and Singapore that are now housed at the Natural History Museum, London (BM), the Royal Botanic Gardens, Kew (K and K-W), the Forest Research Institute of Malaysia (KEP) and the Singapore Botanic Gardens (SING). Type material not available at those institutions was studied online via JSTOR Global Plants (<https://plants.jstor.org>) and accessed in 2021.

Lectotypifications

The names are listed by the basionym of the name being lectotypified. If the basionym is not the currently accepted name, it is listed in italics; if the currently accepted name is homotypic, it is included in the nomenclatural paragraph in bold italics. If the currently accepted name is not homotypic, it is listed separately at the end of the paragraph in bold italics.

1. *Acanthus ebracteatus* Vahl, Symb. Bot. 2: 75 (1791). – TYPE: India Oriental [Thailand], 9 November 1778, *J. König s.n.* (lectotype C [C10004713], designated here).

Notes. Only one gathering is mentioned in the original description of *Acanthus ebracteatus* Vahl (Vahl, 1791): India Oriental, *König s.n.* The specimen at C [C10004713] is designated here as the lectotype.

2. *Avicennia lanata* Ridl., J. Fed. Malay States Mus. 10: 151 (1920). – TYPE: Singapore, River Valley, 9 August 1918, *J.G. Watson & I.H. Burkill 3793* (lectotype SING [SING0004004], designated here; isolectotypes K [K000959852], NY [NY00337283], SING [SING0004006]). = *Avicennia rumphiana* Hallier f.

Notes. At least three gatherings are mentioned in the original description of *Avicennia lanata* Ridl. (Ridley, 1920: 151): two gatherings from Singapore, *J.G. Watson & I.H. Burkill 3793* [K000959852, NY00337283, SING0004004, SING0004006] and *I.H. Burkill 3797* [K000885466, SING0148187], and one from Peninsular Malaysia, *J.G. Watson 2767* [K000885465]. The fruiting specimen of *Watson & Burkill 3793* at SING [SING0004004] is designated here as the lectotype.

3. *Dianthera hyssopifolia* Burm.f., Fl. Ind. 11 (1768). – *Peristrophe hyssopifolia* (Burm.f.) Bremek., Verh. Kon. Ned. Akad. Wetensch., Afd. Natuurk., Sect. 2. 45(2): 32 (1948). – TYPE: [Published illustration] Burman, Fl. Indica t. 5, f. 1 (1768), lectotype designated here.

Notes. In the original publication of this name only gatherings from Java and a plate are mentioned (Burman, 1768: 11). As no specimens have been found that could be original material, the excellent plate with flowers is designated here as the lectotype.

4. *Erythracanthus griffithianus* Nees in DC., Prodr. 11: 78 (1847). – *Staurogyne griffithiana* (Nees) Kuntze, Revis. Gen. Pl. 2: 497 (1891). – TYPE: [Peninsular Malaysia], Malacca, 1845, *Griffith s.n.* [Kew distribution no. 6078] (lectotype K [K000882450], designated here; isolectotypes BR [BR0000006951771], GZU [GZU000250898], K [K000882447, K000882448, K000882449]).

Notes. In the original description of *Erythracanthus griffithianus* Nees (Nees von Esenbeck, 1847: 78) only one gathering is cited: Malacca, Griffith in herbarium Hooker. At the Kew Herbarium three specimens are present, two with the herbarium stamp. The specimen [K000882450] with the largest inflorescences and the Hooker herbarium stamps is designated here as the lectotype.

5. *Eranthemum kingii* C.B. Clarke, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 74: 678 (1908). – *Pseuderanthemum kingii* (C.B. Clarke) Ridley, Fl. Malay Penins. 2: 591 (1923). – TYPE: Singapore, Changi, March 1885, *Hullett 810* (lectotype K [K000885608], designated here).

Notes. In the original description of *Eranthemum kingii* C.B. Clarke (Clarke, 1908: 678) two gatherings are cited: one from Singapore, *Hullett 810*, Changi, March 1885, and one from Johor, *King s.n.*, Jaffaria, 1879. At the Kew Herbarium both specimens

are present, with notes made by Clarke. The Hullett specimen is designated here as the lectotype as it has more flowers than the King one.

6. *Ebermaiera setigera* Nees in DC., Prodr. 11: 76 (1847). – *Staurogyne setigera* (Nees) Kuntze, Revis. Gen. Pl. 2: 497 (1891). – TYPE: [Peninsular Malaysia], Malacca, 1841, *H. Cuming* 2355 (lectotype K [K000882466], designated here; isolectotypes GZU [GZU000250889], K [K000882465]).

Notes. In the original description of *Ebermaiera setigera* Nees (Nees von Esenbeck, 1847: 76) only one gathering is cited: Malacca, *Cuming* 2355 in Herbarium Bentham and Herbarium Hooker. At Kew, two specimens are present and the specimen [K000882466] is designated here as the lectotype.

7. *Endopogon ridleyi* C.B. Clarke, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 74: 654 (1908). – TYPE: Singapore, Stagmount, *Ridley* 11255 (lectotype SING [SING0027252], designated here; isolectotypes CAL [CAL0000019797], K [K001096851]). = *Strobilanthes palawanensis* Elmer.

Notes. In the original description of *Endopogon ridleyi* C.B. Clarke (Clarke, 1908: 654) two gatherings are cited. Both are Ridley collections from Stagmount: 11255 housed at CAL, K and SING and 5987 housed at SING. At the SING Herbarium both specimens are present, but according to the label of 5987 it was collected at Chua Chu Kang rather than at Stagmount. Therefore, given this uncertainty, *Ridley* 11255 from Stagmount in SING is designated here as the lectotype.

8. *Hygrophila angustifolia* R.Br., Prodr. Fl. Nov. Holland. 479 (1810). – TYPE [Australia], Endeavour River, *Banks & Solander* 61 (lectotype BM [BM001041152], designated here; isolectotype BM [BM001041153]). = *Hygrophila ringens* (L.) R.Br. ex Spreng.

Notes. There are two specimens at the BM of the gathering *Banks & Solander* 61 mentioned in Brown (1810). One specimen [BM001041153] only has one sterile twig, while the other specimen [BM001041152] has the original label and some mature flowers and fruits. This latter specimen is designated here as the lectotype.

9. *Hygrophila phlomoides* Nees var. *angusta* Ridl., Fl. Malay. Penins. 2: 567 (1923). – TYPE: [Peninsular Malaysia], Kelantan, Glam Woods, Kota Bharu, February 1917, *Ridley s.n.* (lectotype K [K000882571], designated here). = *Hygrophila phlomoides* Nees.

Notes. In the original publication of this name (Ridley, 1923: 567) the information ‘Wet woods in low lying country, Kelantan, Glam Woods, Kota Bharu (Ridley)’ is given. A Ridley specimen at K [K000882571] with this locality data is present and this specimen is designated here as the lectotype.

10. *Ruellia quadrivalvis* Buch.-Ham., Trans. Linn. Soc. London 14: 291 (1825). – *Hygrophila quadrivalvis* (Buch.-Ham.) Nees, Pl. Asiat. Rar. 3: 89 (1832), nom. superfl. – TYPE: [India, Dhamdaha, Purnia] in hortus Mithi Mangiferis, *Wallich s.n.* [EIC 2374a] (lectotype K-W [K001115791], designated here; isolectotype M [M0186514]). = *Hygrophila ringens* (L.) R.Br. ex Spreng.

Notes. In the original description of *Ruellia quadrivalvis* (Buchanan-Hamilton, 1825: 291) only one gathering is cited: from Mithilae in the Hortis mangiferis. When Buchanan-Hamilton returned to Scotland, he organised his Bengal collections and wrote a manuscript catalogue of them. The top set was given back to the East India Company and subsequently N. Wallich incorporated it into the Wallich Herbarium. Buchanan-Hamilton kept the second set himself and this is now in the herbarium of the Royal Botanic Gardens Edinburgh, along with his copy of the catalogue (Mark Watson, pers. comm.). The specimen in the K-W herbarium is selected here as the lectotype.

The name *Hygrophila quadrivalvis* (Buch.-Ham.) Nees was superfluous when first published by Nees von Esenbeck (1832) as he included *Ruellia barbata* Vahl in synonymy. Under Art. 52.4 of the ICN (Turland et al., 2018) this means that *Hygrophila quadrivalvis* (Buch.-Ham.) Nees is superfluous but not illegitimate and can be the correct name for a taxon later if *Ruellia barbata* Vahl is specifically removed from synonymy or in a work where both taxa are recognised as separate. The name *Ruellia barbata* Vahl is currently an unplaced name, so the status of *Hygrophila quadrivalvis* (Buch.-Ham.) Nees remains uncertain.

11. *Hygrophila spinosa* T.Anderson in Thwaites, Enum. Pl. Zeyl. 225 (1860). – TYPE: [Sri Lanka], 1854, *G.H.K. Thwaites C.P. 2900* (lectotype P [P00650229], designated here; possible isolectotypes BR [BR0000006944483], P [P00650228, P00650230]). = *Hygrophila schulli* (Buch.-Ham.) M.R.Almeida & S.M.Almeida.

Notes. In the original description of *Hygrophila spinosa* (Anderson, 1860: 225) only one gathering is cited: *C.P. 2900*. There are several specimens of this housed in P and one in BR. Several are also cited as being at PDA (Cramer, 1988) but I have not had access to these. Most specimens have fruits, but one has several mature flowers, and this specimen is designated here as the lectotype.

12. *Justicia baphica* Spreng., Neue Entdeck. Pflanzenk. 3: 82 (1822). – *Justicia tinctoria* Roxb., Fl. Ind., 1: 124 (1820), non Lour. (1790). – TYPE: [Published illustration] *Daun benang* in Rumphius, Herb. Amboin. 6: 51, tab. 22, f. 1 (1750), lectotype designated here. = ***Peristrophe bivalvis*** (L.) Merr.

Notes. This name is based on the name *Justicia tinctoria* Roxb. (Roxburgh, 1820) which is an illegitimate name as it was already occupied by *Justicia tinctoria* Lour. (Loureiro, 1790). In the original description of *Justicia tinctoria* Roxb. a plate in Rumphius's *Herbarium Amboinense* is mentioned and is designated here as the lectotype.

13. *Peristrophe acuminata* Nees in Wallich, Pl. Asiat. Rar. 3: 113 (1832). – TYPE: [Myanmar], Tavoy, 8 September 1827, *W. Gomez s.n.* [EIC 2425b] (lectotype GZU [GZU000251086], designated here; isolectotype K-W [K001115910]). = ***Peristrophe hyssopifolia*** (Burm.f.) Bremek.

Notes. In the original description of *Peristrophe acuminata* Nees (Nees von Esenbeck, 1832: 113) two gatherings are cited: *Wallich Cat. n. 2425a* and *W. Gomez s.n.* [EIC 2425b]. The specimen of *W. Gomez s.n.* [EIC 2425b] in GZU is designated here as the lectotype.

14. *Ruellia erecta* Burm.f., Fl. Ind. 135, t. 41, f. 3: 135 (1768). – TYPE: [Published illustration] Burman, Fl. Ind. t. 41, f. 3 (1768), lectotype designated here. = ***Hygrophila ringens*** (L.) R.Br. ex Spreng.

Notes. In the original publication of this name two different illustrations are mentioned (Burman, 1768: 135), one in the *Flora Indica* (t. 41, f. 3) and a plate in Rheede's *Hortus Malabaricus* (vol. 9, t. 56). In the absence of any specimens identified as original material, the excellent figure 3 on plate 41 in the *Flora Indica* is designated here as the lectotype.

15. *Ruellia salicifolia* Vahl, Symb. Bot. 3: 84 (1794). – TYPE: [India], 'India Orientalis', *J. König s.n.* (lectotype C [C10004916], designated here). = ***Hygrophila ringens*** (L.) R.Br. ex Spreng.

Notes. In the original publication of this name only the collection information 'India Orientalis' is given (Vahl, 1794: 84). The *J. König s.n.* specimen [C10004916] housed at C, which was collected in India and otherwise matches the protologue, is designated here as the lectotype.

16. *Staurogyne malaccensis* C.B. Clarke var. *stenophylla* Bremek., Reinwardtia 3: 205 (1955). – TYPE: [Peninsular Malaysia], Langkawi Islands, *H.N. Ridley 15670* (lectotype SING [SING0251860], designated here; isolectotype K [K001495196]). = *Staurogyne setigera* (Nees) Kuntze.

Notes. In the original description of *Staurogyne malaccensis* C.B. Clarke var. *stenophylla* Bremek. (Bremekamp, 1955: 205) ten gatherings from K and/or SING are cited: *Haniff & Nur S.F. 3860* (SING) from Punga [Phangnga] in Peninsular Thailand; *Curtis s.n.* (SING) from Kasoon in Peninsular Thailand; *Seidenfaden 2244* (SING) from Surat Thani in Peninsular Thailand; *Robinson 6258* (K) from Peninsular Malaysia; *H.N. Ridley 15670* (K, SING) from the Langkawi Islands, Malaysia; *Corner s.n.* (SING) from the Langkawi Islands, Malaysia; s.l., *Curtis s.n.* (K); *Curtis 1931* (SING [2 sheets]) from Penang, Malaysia; *H.N. Ridley 6998* (SING) from Penang, Malaysia; and *Henderson S.F. 19618* (SING) from Gua Musang, Kelantan in Malaysia. The gathering *H.N. Ridley 15670* is the only one which is housed at both SING and K. The SING specimen is designated here as the lectotype.

17. *Strobilanthes pachyphylla* C.B. Clarke, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 74: 658 (1908). – TYPE: [Peninsular Malaysia], Perak, January 1885, *King's Collector 7150* (lectotype K [K001495194], designated here; isolectotype CAL [CAL0000019645]). = *Strobilanthes collina* Nees.

Notes. In the original description of *Strobilanthes pachyphylla* C.B. Clarke (Clarke, 1908: 658) two gatherings are cited: *Scortechini 1786* and *King's Collector 7150*, both from Peninsular Malaysia. The collection *King's Collector 7150*, at both K and CAL, has a note in Clarke's handwritings stating: '*Strobilanthes pachyphylla* sp. nov. C.B. Clarke, 17 June 1904'. Of these, the K specimen is selected here as the lectotype.

18. *Thunbergia harrisii* Hook., Bot. Mag. t. 4998 (1857). – TYPE: [Published illustration] Hooker, Bot. Mag. t. 4998 (1857), lectotype designated here. = *Thunbergia laurifolia* Lindl.

Notes. In the original description of *Thunbergia harrisii* Hook. (Hooker, 1857: t. 4998) only one gathering is cited. This plant was originally sent as seed by Lord Harris, governor of Madras, India, to the nurseries of James Veitch & Son in Chelsea. The description of the plant in the protologue and the plate 4998 in the Botanical Magazine article are from the same plant and as no original herbarium material is extant, the plate from the protologue is designated here as the lectotype.

19. *Thunbergia reticulata* Hochst. ex Nees in DC., Prodr. 11: 58 (1847). – TYPE: Abyssinia [Ethiopia], Gapdiam, 24 August 1838, *Schimper 758* (lectotype GZU [GZU000250986], designated here; isolectotypes K [K000393638, K000393639, K000393640]). = *Thunbergia alata* Bojer ex Sims.

Notes. In the original description of *Thunbergia reticulata* Hochst. ex Nees (Nees von Esenbeck, 1847: 58) only one gathering is cited: *Schimper 758* from Abyssinia [now Ethiopia]. There is one specimen of this gathering at GZU where Nees von Esenbeck's Acanthaceae collections are housed. This specimen is designated here as the lectotype.

Neotypification

1. *Thunbergia laurifolia* Lindl., Gard. Chron. 1856: 260 (1856). – TYPE: [Published illustration] Hooker, Bot. Mag. t. 4985 (1857), neotype designated here.

Notes. In the original description of *Thunbergia laurifolia* Lindl. (Lindley, 1856: 260) only one gathering is cited, a living plant from James Veitch & Son. The specimen depicted a year later in Botanical Magazine plate 4985 is reported to be of the same origin and is probably the same plant. As suggested by Vollesen (2008: 42), this plate is designated here as the neotype.

ACKNOWLEDGEMENTS. The author is grateful to the curators of the BM, GH, K, KEP, L, P and SING herbaria for access to the specimens used in the present study. Many thanks to Mark Watson and Heleen Plaisier from the Royal Botanic Gardens, Edinburgh for their help with the Wallich material, and David Middleton, Ian Turner and two anonymous reviewers for their taxonomic advice. This work was supported by a Research Fellowship at the Singapore Botanic Gardens, which is gratefully acknowledged.

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