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TYPIFICATION OF SRI LANKAN GESNERIACEAE

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Towards a comprehensive revision of Gesneriaceae in Sri Lanka, 12 names are here typified, of which 11 are lectotypifications, including one second-step lectotypification, and the other is a neotypification.

Keywords. Gesneriaceae, Sri Lanka, typification.

Introduction

The plant family Gesneriaceae is represented in Sri Lanka by six genera: Aeschynanthus Jack, Championia Gardner, Epithema Blume, Henckelia Spreng., Rhynchoglossum Blume and Rhynchotechum Blume. A complete taxonomic revision of Gesneriaceae in Sri Lanka based on both molecular and morphological data resulted in the recognition of 14 species in the six genera (Ranasinghe, 2017), including one newly described species, Henckelia wijesundarae Ranasinghe & Mich.Möller (Ranasinghe et al., 2016). Although several names were typified in earlier papers (e.g. Wood, 1974; Ranasinghe et al., 2016), a number of names still lack holotypes or lectotypes as defined in the International Code of Nomenclature for Algae, Fungi and Plants (Turland et al., 2018). Therefore, the current paper includes the typification of all remaining names relevant to the Gesneriaceae flora of Sri Lanka, including names now treated as synonyms. One name not treated here is Rhynchoglossum scabrum Dalzell, which was previously regarded as synonymous with R. notonianum (Wall.) B.L.Burtt (Burtt, 1962) but is now considered distinct (A.P. Janeesha & S. Nampy, Department of Botany, University of Calicut, personal communication). It does not occur in Sri Lanka and is not further considered in this paper.

Original material was located among the specimens held in E and those received on loan from the following herbaria: BM, CAL, K, L, MO, US and W (herbarium codes from Thiers, continuously updated). In addition, specimens at PDA were studied during visits to Sri Lanka in 2014 and 2015 (by S.R.). All specimens cited here have been seen, unless otherwise stated.

George Henry Kendrick Thwaites was the superintendent of the Botanic Gardens in Ceylon (Sri Lanka) from 1849 to 1879, with the title of Director from 1857. He assigned a

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number series to the specimens already deposited in the herbarium, starting with the abbreviation *CP* for 'Ceylon Plants', and continued with the same number series for new collections. As noted by Wheeler (1983) and Stafleu & Cowan (1986), the *CP* numbers on herbarium material from Sri Lanka ['Ceylon'] distributed by Thwaites are not standard collectors' numbers that suggest a single collection from a specific locality on a single date. Instead, the specimens distributed under each *CP* number may have been collected at various places and times by various collectors (Wheeler, 1983). Therefore, when selecting material for lectotypification, and also when identifying isolectotypes, great care must be exercised in interpreting the material with *CP* numbers on a case-by-case basis.

In all cases, the lectotype was selected as being the most representative and complete specimen from among the original material. In the list below, the current name is given in bold roman text and synonyms in italics. When the current name is heterotypic, then the original name to be lectotypified is stated first, and the current name follows in bold at the end of each entry.

Typifications

Aeschynanthus ceylanicus Gardner, Calcutta J. Nat. Hist. 6: 474 (1846) ['ceylanica']; Wight, Icon Pl. Ind. Orient. t. 1347 (1848) ['ceylanica']; Walpers, Ann. Bot. Syst. 3: 95 (1852) ['zeylanica']; Thwaites, Enum. Pl. Zeyl. 206 (1864) ['zeylanica']; C.B.Clarke in A.DC. & C.DC., Monogr. Phan. 5(1): 26 (1883) ['ceylanica']; Trimen, Handb. Fl. Ceylon 3: 272 (1895) ['zeylanica']. – Trichosporum ceylanicum (Gardner) Kuntze, Revis. Gen. Pl. 2: 478 (1891). – Type: Ceylon [Sri Lanka], Gardner 599 (lecto K [K000190166], designated here).

When Gardner (1846) described this species, he cited its habitat as "on trees in forests on the mountains of the Central Province" but without providing any collection details. Clarke (1883) cited several specimens: *Gardner* 599 (K), *Mrs. Walker* (K) and *Thwaites CP* 1782 (B, BM, G-BOIS, G-DC, K). Trimen (1895) cited only *Thwaites CP* 1782, but this would have been collected after publication of the protologue. There are three specimens of *Gardner* 599 at K (K000190166, K000096751 and K000096752), each annotated *Aeschynanthus ceylanica* (now *ceylanicus*) and likely to be original material. One of these, K000190166, bears a pencil-written label, '*Aeschynanthus ceylanica*, Gardn. Rambodde, Ceylon'. The other two specimens give the locality data only as 'Ceylon'. Because K000190166 most closely matches Gardner's original description, especially in the locality information, it is selected here as the lectotype.

2. Championia reticulata Gardner, Calcutta J. Nat. Hist. 6: 485 (1846); Walpers, Ann. Bot. Syst. 3: 95 (1852); Thwaites, Enum. Pl. Zeyl. 208 (1864); C.B.Clarke in A.DC. & C.DC., Monogr. Phan. 5(1): 133 (1883); Trimen, Handb. Fl. Ceylon 3: 277 (1895); W.L.Theob. & Grupe in Dassan. & Fosberg, Revis. Handb. Fl. Ceylon 3: 96–97 (1981). – Type: Ceylon [Sri Lanka], Mrs. Walker s.n. (lecto K [K000899489], designated here).

In the original description of this species, Gardner (1846) mentioned collections made by Alexander Moon from Saffragam (Saffragam in Moon's catalogue refers to 'four Korales', with Korales being administrative divisions during the British colonial period), and by Mrs Walker from Adam's Peak. Four sheets of material collected by Walker in the period 1830–1838 are known: two at K (K000899489 and K000899490), one at P (P03552821) and one at W (accession no. W0050320, not barcoded). Only the material on the two sheets at K is labelled as collected by 'Mrs. Walker'; the sheets at P and W have only 'Walker' as the collector. Therefore, there is some uncertainty as to whether the material on the sheets at P and W was collected by General Walker or his wife, Mrs Walker. None of the herbarium sheets state the locality as 'Adam's Peak'. However, on balance, the specimens on all the sheets are likely to be original material from which a lectotype can be chosen. K000899489 is the most complete specimen and both plants on the sheet appear to come from a single gathering. Therefore, K000899489 is selected as the lectotype of *Championia reticulata*.

3. Chirita communis Gardner, Calcutta J. Nat. Hist. 6: 481 (1846). – Roettlera communis (Gardner) Kuntze, Rev. Gen. Pl. 2: 476 (1891). – **Henckelia communis** (Gardner) D.J.Middleton & Mich.Möller in Weber *et al.*, Taxon 60: 775 (2011). – Type: Ceylon [Sri Lanka], *Gardner* 602 (lecto K [K000858373], designated here).

This species was originally described by Gardner (1846) as a species "common in moist shady places in forests on the mountains of the Central Province" of Ceylon (Sri Lanka). The protologue does not refer to any collections or names of any collectors. The lectotype, therefore, has been selected from material that matches the protologue and was collected by Gardner himself in the Central Province prior to the publication of the name. *Gardner* 602 fits this description and was mentioned by Theobald & Grupe (1981), who cited specimens from both BM and K. The sheet at BM, however, could not be located. There are two plants of *Chirita communis* mounted on the *Gardner* 602 sheet at K. These two plants have flowers, fruit and vegetative characters that match Gardner's original description. Therefore, the herbarium sheet at K, K000858373, is selected as the lectotype for *Chirita communis*.

4. Chirita zeylanica var. angusta C.B.Clarke in A.DC. & C.DC., Monogr. Phan. 5(1): 113 (1883); Trimen, Handb. Fl. Ceylon 3: 276 (1895). – Chirita zeylanica var. β Thwaites, Enum. Pl. Zeyl. 208 (1864). – Chirita angusta (C.B.Clarke) W.L.Theob. & Grupe, Ceylon J. Sci., Biol. Sci. 10(1): 70 (1972); W.L.Theob. & Grupe in Dassan. & Fosberg, Revis. Handb. Fl. Ceylon 3: 95–96, Fig. 4a,b (1981). – Henckelia angusta (C.B.Clarke) D.J.Middleton & Mich.Möller in Weber et al., Taxon 60: 774 (2011). – Type: Ceylon [Sri Lanka], between Galle and Ratnapoora, Thwaites CP 3437 (lecto K [K000858374], first step designated by Wood (1974), second step designated here).

Thwaites (1864) recognised a variety in *Chirita zeylanica*, var. β , an endemic to Sri Lanka, in his *Enumeratio Plantarum Zeylaniae*, citing collection *CP* 3437.

He described the location of the variety as at the edge of a rivulet in the Singherajah (Sinharaja) forest between Galle and Ratnapoora. Later, Clarke (1883) named this variety *Chirita zeylanica* var. *angusta* and cited several specimens of the same number, *CP* 3437, at various herbaria as "Ceylon; inter Galle et Ratnapoora (*Thwaites C.P.*, n. *3437* in hh. Kew, Mus. Brit., DC, Berol., Paris)". Wood (1974) synonymised *Chirita zeylanica* var. *angusta* under *Chirita zeylanica* Hook., where he cited *CP* 3437 at K as a 'holotype' and *CP* 3437 held at different herbaria were found: one at BM (BM000997766), two at K (one sheet, K000858374; the second sheet with K000858375 and K000858376), three at P (P03884087, P03884091, P03884092) and two at PDA. As several syntypes are mentioned in the protologue there is no holotype, but Wood (1974) effectively lectotypified the material at K in a first step. We choose K000858374 from the material at K in a second-step lectotypification. As it is not certain that the remaining specimens of *CP* 3437 are indeed duplicates of a single gathering (Wheeler, 1983), they are not cited here as isolectotypes.

5. Didymocarpus floccosus Thwaites, Enum. Pl. Zeyl. 207 (1864) ['floccosa']; Trimen, Handb. Fl. Ceylon 3: 274 (1895); W.L.Theob. & Grupe in Dassan. & Fosberg, Revis. Handb. Fl. Ceylon 3: 86–88, Fig. 2b (1981). – Roettlera floccosa (Thwaites) Kuntze, Revis. Gen. Pl. 2: 476 (1891). – Henckelia floccosa (Thwaites) A.Weber & B.L.Burtt, Beitr. Biol. Pflanzen 70: 344 (1998 ['1997']); Vitek et al., Ann. Naturhist. Mus. Wien, B 102: 495 (2000); Weber et al., Taxon 60: 775 (2011). – Type: Ceylon [Sri Lanka], Raxawa, July 1855, Thwaites CP 3368 (lecto PDA [not barcoded] designated here; isolecto BM [not barcoded], CAL [not barcoded], K [K000858181], PDA [not barcoded], W [not barcoded; W-Rchb. 1889–0070390] and two sheets at P [P04060475, P04060476]).

In the protologue, Thwaites (1864) gave the collection number as *CP* 3368, and Theobald & Grupe (1981) noted that this was the only collection in Sri Lanka before their own collection in 1968. Vitek *et al.* (2000) listed three herbaria, BM, K and W, as having specimens of *CP* 3368 but without selecting any of these as a type. We have found six sheets of *CP* 3368 in different herbaria: one sheet at each of BM (not barcoded), CAL (not barcoded), K (K000858181), PDA (not barcoded), W (not barcoded) and W-Rchb. (1889-0070390), and two sheets at P (P04060475, P04060476). Although Wheeler (1983) noted that it could not be assumed that Thwaites' specimens with the same number are duplicates, in the case of *Thwaites CP* 3368 it would appear likely that they are, so they are treated thus here. This is because Thwaites' specimens of *CP* 3368 are all collected from only one locality, i.e. from Raxawa in Sri Lanka, and there is no evidence to suggest that these specimens were collected on different dates. Hence, the most representative specimen at PDA (not barcoded) is selected as the lectotype while the other five sheets mentioned above are treated as isolectotypes.

- 6. Didymocarpus longipetiolatus Gardner, Calcutta J. Nat. Hist. 6: 475 (1846)
 ['longipetiolata']; Vitek et al., Ann. Naturhist. Mus. Wien, B 102: 504, 527 (2000).
 Type: Ceylon [Sri Lanka], Mrs. Walker 1720 (lecto E [E00627485], designated here).
 - Type: Ceylon [Sti Lanka], Mrs. Walker 1720 (lecto E [E00027485], designated new
 - = Henckelia zeylanica (R.Br.) A.Weber & B.L.Burtt

Gardner (1846) cited a collection in his original description and gave the locality and collector information as "Adam's Peak, found by Mrs. General Walker". Two herbarium sheets of material collected by Mrs Walker are available, one each at K and E. The one at E, E00627485, matches the protologue and 'D. zeylanicus R.Br.', 'Ceylon' and 'Walker No 1720' are written on it in pencil. There are no annotations of the name 'Didymocarpus longipetiolata'. The second sheet at K has three plants of Didymocarpus humboldtianus (now Henckelia humboldtiana), with 'Didymocarpus humboldtiana' written on it along with the name of 'Gardner'. One plant at the top right-hand corner of the same sheet is Henckelia zeylanica. There is also a label with a pencil-written 'No 24', 'Ceylon' and 'Mrs. Walker' on the same sheet. Both sheets probably display the original material, despite the lack of direct evidence. The more complete and less open to confusion is the herbarium sheet at E (E00627485) that is here proposed as the lectotype.

- 7. Didymocarpus primulifolius Gardner, Calcutta J. Nat. Hist. 6: 478 (1846) ['primulaefolia'], nom. illeg., non Didymocarpus primulifolius D.Don (1825). Didymocarpus humboldtianus var. primulifolius Thwaites, Enum. Pl. Zeyl. 207 (1864) ['primulaefolia']; Hook., Bot. Mag. 86: pl. 5161 (1860). Type: Ceylon [Sri Lanka], Hantane, Gardner 601 (lecto K [K000858191], designated here; isolecto BM [BM000617482], K [K000858192]).
 - = Henckelia humboldtiana (Gardner) A.Weber & B.L.Burtt

Gardner (1846) described this species as occurring "on shady rocks on the Hantane range, near Kandy". The name was included as a heterotypic synonym of *Henckelia humboldtiana* by Vitek *et al.* (2000). They cited the *Gardner* 601 specimens at K and BM as types, without singling out either as a lectotype. There are two sheets of this collection at K (K000858191 and K000858192). The sheet K000858191 has no collector name but has the location 'Hantane' written on it. The second sheet, K000858192, has no locality information but the name 'Gardner' written on it. At BM, plants of *Gardner* 601 (BM000617482) are mounted together with those of *CP* 1785 (BM000997738) (see also the note by Vitek *et al.*, 2000, p. 499). The specimen of *Gardner* 601 at BM also has a pencil-written label, which states 'Hantane' and 'Gardner 601'. The best specimen reflecting the characters described by Gardner is one of those at K (K000858191), and it is here selected as the lectotype.

8. Didymocarpus zeylanicus R.Br., Cyrtandreae 119 (1839) ['zeylanica']; Thwaites, Enum. Pl. Zeyl. 207 (1864) ['zeylanica']; C.B.Clarke in A.DC. & C.DC., Monogr.

Phan. 5(1): 104 (1883) ['zeylanica']; Trimen, Handb. Fl. Ceylon 3: 274 (1895); W.L.Theob. & Grupe in Dassan. & Fosberg, Revis. Handb. Fl. Ceylon 3: 88–89, Fig. 2c (1981). – *Roettlera zeylanica* (R.Br.) Kuntze, Revis. Gen. Pl. 2: 477 (1891). – **Henckelia zeylanica** (R.Br.) A.Weber & B.L.Burtt, Beitr. Biol. Pflanzen 70: 359 (1998 ['1997']); Vitek *et al.*, Ann. Naturhist. Mus. Wien, B 102: 504, 527 (2000); Weber *et al.*, Taxon 60: 778 (2011). – Type: Ceylon [Sri Lanka], Ambagamuwa, Adam's Peak, *Walker* 1720 (lecto E [E00627485], designated here).

Robert Brown (1839) first described this species but no specimens or collectors are mentioned, and no specimens have been traced that have been annotated by him. Thwaites (1864) listed three CP-numbered collections, CP 352, CP 395 and CP 1783, for Didymocarpus zeylanicus. Clarke (1883) listed "Zeylania (Domina Walker, in hh. Kew, Delessert); alt. 1600–1800 metr., prope Adam's Peak (Thwaites C.P., mi. 395, 352, 1783 in h. Kew, n. 352 in hh. Mus. Brit., DC, Boissier, Berol.)". Vitek et al. (2000) stated "Type: Ceylon, coll.? [?]. - 'Ceylon, descr. A', s. coll. [BM] could be type material". There is one specimen, BM001217066, available at BM labelled as 'Thwaites (1853) no. 352' and another sheet of CP 352 found at PDA (not barcoded) with four plants mounted on it. However, all these Thwaites collections are too recent to have been used by Brown (1839) for the protologue. The Walker collection mentioned by Clarke (1883) is the only one of those here mentioned that could have been collected early enough to have been seen by Brown. The 'hh Delessert' Walker specimen could not be traced, but two other Walker specimens were traced in this study. A *Henckelia zeylanica* specimen at K is labelled 'Mrs. Walker 24' and mounted together with material of Henckelia humboldtiana. This specimen has no other annotation on it, including no annotation of the name by Brown. A Henckelia zeylanica specimen at E (E00627485) has an annotation 'Ceylon Walker No 1720' but no annotations made by Brown. Although there is no direct evidence that Brown saw this collection, in the absence of any other material it is likely that the Walker collection is original material and hence available for lectotypification. Of the two specimens, the E specimen is better and proposed here as the lectotype of Didymocarpus zeylanicus.

- **9.** *Glossanthus malabaricus* Klein ex Benth., Scroph. Ind. 57 (1835), nom. illeg. Type: India, Travancore, *s.coll*. in the East India Company Herbarium, *Wallich* 6394A (lecto K-W [K001123774], designated here).
 - = Rhynchoglossum notonianum (Wall.) B.L.Burtt

This name was validly published by Bentham (1835), based on a collection from an unknown collector housed in Wallich's East India Company herbarium, but is illegitimate because of the inclusion of *Wulfenia notoniana* in synonymy, the name that should have been used. Bentham noted Wallich's (1828) catalogue number 6394 in the description of *Glossanthus malabaricus*. There are two specimens at K with this number: 6394A and 6394B. The specimen 6394A (K001123774) is selected as the lectotype because it has flower and fruit characters that match the protologue description.

10. Klugia ceylanica Gardner, Calcutta J. Nat. Hist. 6: 490 (1846); Thwaites, Enum. Pl. Zeyl. 208 (1864) ['zeylanica']; C.B.Clarke in A.DC. & C.DC., Monogr. Phan. 5(1): 160 (1883) ['zeylanica']; Trimen, Handb. Fl. Ceylon 3: 278 (1895) ['zeylanica']. – Glossanthus zeylanicus R.Br., Cyrtandreae 121 (1839), nom. nud. – Klugia zeylanica A.DC., Prodr. 9: 276 (1845), nom. nud. – Rhynchoglossum gardneri W.L.Theob. & Grupe, Ceylon J. Sci., Biol. Sci. 10: 70 (1972); W.L.Theob. & Grupe in Dassan. & Fosberg, Revis. Handb. Fl. Ceylon 3: 101–102, Fig. 6a,b (1981). – Type: Ceylon [Sri Lanka], Gardner 604 (neo K [K000858042], designated here).

Gardner (1846) described this species as being "common in moist shady places about Kandy", without citing any collections. Burtt (1962) moved *Klugia ceylanica* to *Rhynchoglossum*, but he refrained from making a new combination pending further studies because the species epithet *ceylanica* (*zeylanica*) is already used within *Rhynchoglossum* (*R. zeylanicum* Hook. = *R. obliquum* Blume). Theobald & Grupe (1981) published the nomen novum *Rhynchoglossum gardneri* for this species, citing specimens from various collectors including Gardner's specimen 604 from Kandy district deposited at K and BM, but they did not lectotypify the name. We have been unable to locate any original material with the locality annotation 'Kandy'. There are two specimens collected by Gardner mounted on the same sheet at K but individually numbered and barcoded as *Gardner* 603 (K000858041) and *Gardner* 604 (K000858042). The date given on the sheet is 1847, postdating the original description of the species from 1846. In the absence of definitive original material, we neotypify with *Gardner* 604 (K000858042), of Gardner's own later collections of this species from Kandy district.

- **11.** *Klugia glabra* Gardner, Calcutta J. Nat. Hist. 6: 489 (1846). *Klugia notoniana* var. *glabra* (Gardner) C.B.Clarke in A.DC. & C.DC., Monogr. Phan. 5(1): 159 (1883). Type: Ceylon [Sri Lanka], *Walker s.n.* (lecto K [K000858047], designated here).
 - Type. Ceylon [511 Dama], water s.m. (lecto it [10000500 17], design
 - = Rhynchoglossum notonianum (Wall.) B.L.Burtt

This taxon was first described by Gardner (1846), citing its habitat "in moist shady places near Rambodde". No collections were cited. Later, Clarke (1883) recognised the species as a variety of *Klugia notoniana*. There are no specimens collected by Gardner under the name *Klugia glabra* available at PDA or any other herbaria. The specimen K000858047 has pencil-written notes stating 'Ceylon Mrs. General Walker' and is likely to be original material available for lectotypification; it is therefore selected as lectotype.

12. Wulfenia notoniana Wall., Tent. Fl. Nepal. 46 (1826). – Glossanthus notoniana (Wall.) R.Br., Cyrtandreae 121 (1839) ['notonianus']. – Klugia notoniana (Wall.) A.DC., Prodr. 9: 276 (1845); Gardner, Calcutta J. Nat. Hist. 6: 487 (1846); Thwaites, Enum. Pl. Zeyl. 208 (1864); C.B.Clarke in A.DC. & C.DC., Monogr. Phan. 5(1): 159–160 (1883); Trimen, Handb. Fl. Ceylon 3: 277 (1895). – Rhynchoglossum notonianum (Wall.) B.L.Burtt, Notes Roy. Bot. Gard. Edinburgh 24: 170 (1962);

W.L.Theob. & Grupe in Dassan. & Fosberg, Revis. Handb. Fl. Ceylon 3: 99–101, Fig. 6c (1981). – Type: India, Nilghiry [Nilgiri], *Norton*, *P.J. s.n.* in the East India Company Herbarium *Wallich* 409 (lecto K-W [K001109983], designated here).

Wallich (1826) named this species when he received specimens from "P.J. Norton, Esq. Assay Master at Bombay", who gathered them in a swamp near Nilghirry [Nilgiri]. However, he designated no type specimen. There is one specimen available at K (K001109983) with the collector's name 'Norton'. This specimen has pencil-written notes on it by Wallich, but they are difficult to read. However, it has 'Wulfenia notoniana' and 'p. 46' (the page number in Wallich's publication) written on the labels. The 'No. 409' on the original label of the sheet tallies with Wallich's Catalogue entry 409 for Wulfenia notoniana. Therefore, this specimen, K001109983, is selected as the lectotype.

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REFERENCES

- BENTHAM, G. (1835). Scrophularineae Indicae: a Synopsis of the East Indian Scrophularineae. London: James Ridgeway & Sons.
- BROWN, R. (1839). On Cyrtandreae. In: BENNETT, J. J. (ed.) *Plantae Javanicae Rariores, Part* 2, *1840*, p. 119. London: Richard & John E. Taylor.
- BURTT, B. L. (1962). Studies in the *Gesneriaceae* of the Old World XXIII: *Rhynchoglossum* and *Klugia*. *Notes Roy*. *Bot*. *Gard*. *Edinburgh* 24: 167–171.
- CLARKE, C. B. (1883). Cyrtandreae. In: CANDOLLE, A. DE & CANDOLLE, C. DE (eds) *Monographiae Phanerogamarum*, vol. 5, part 1, pp. 1–303. Paris: G. Masson.
- G A R D N E R, G. (1846). Contributions towards a Flora of Ceylon. *Calcutta J. Nat. Hist.* 6: 471–493. R A N A S I N G H E, S. (2017). Molecular species delimitation, taxonomy and biogeography of Sri Lankan Gesneriaceae. Ph.D. thesis, University of Edinburgh.
- RANASINGHE, S., MILNE, R., JAYASEKARA, R., RUBASINGHE, S. & MÖLLER, M. (2016). *Henckelia wijesundarae* (Gesneriaceae), a new endemic species from Sri Lanka, and lectotypification of *Chirita walkerae* and *C. walkerae* var. *parviflora. Willdenowia* 46(2): 213–224.

- STAFLEU, F. A. & COWAN, R. S. (1986). Taxonomic Literature: a Selective Guide to Botanical Publications and Collections with Dates, Commentaries and Types, Volume VI: Sti-Vuy, 2nd edition, pp. 1–926. Utrecht: Bohn, Scheltema & Holkema.
- THEOBALD, W. L. & GRUPE, D. A. (1981) Gesneriaceae. In: DASSANAYAKE, M. D. & FOSBERG, F. R. (eds) Revised Handbook to the Flora of Ceylon, vol. 3, pp. 79–107. New Delhi: Amerind Publishing Co.
- THIERS, B. (continuously updated). *Index Herbariorum: a Global Directory of Public Herbaria and Associated Staff. New York Botanical Garden's Virtual Herbarium*. Online. Available: http://sweetgum.nybg.org/ih/.
- THWAITES, G. H. K. (1864). Enumeratio Plantarum Zeylaniae. London: Dulau & Co.
- TRIMEN, H. (1895). A Hand-book to the Flora of Ceylon. London: Dulau & Co.
- Turland, N. J., Wiersema, J. H., Barrie, F. R., Greuter, W., Hawksworth, D. L., Herendeen, P. S., Knapp, S., Kusber, W.-H., Li, D.-Z., Marhold, K., May, T. W., McNeill, J., Monro, A. M., Prado, J., Price, M. J., & Smith, G. F. (eds) (2018). International Code of Nomenclature for Algae, Fungi, and Plants (Shenzhen Code) Adopted by the Nineteenth International Botanical Congress Shenzhen, China, July 2017. Regnum Vegetabile 159, vol. XXXVIII, p. 254. Glashütten: Koeltz Botanical Books. doi: https://doi.org/10.12705/Code.2018.
- VITEK, E., WEBER, A. & BURTT, B. L. (2000). Names, types and current placement of the species hitherto referred to *Didymocarpus*, *Loxocarpus*, *Codonoboea*, *Platyadenia* and *Henckelia* (Gesneriaceae). *Ann. Naturhist. Mus. Wien*, B 102: 477–530.
- WALLICH, N. (1826). Tentamen Florae Napalensis Illustratae, Fascicle 2. Calcutta: Asiatic Lithographic Press.
- WALLICH, N. (1828). A Numerical List of Dried Specimens of Plants in the East India Company's Museum, Collected Under the Superintendence of Dr. Wallich of the Company's Botanic Garden at Calcutta. London: East India Company.
- WHEELER, L. C. (1983). Citation of the nineteenth century specimens in the herbarium at Peradeniya. *Ceylon J. Sci., Biol. Sci.* 16(1 & 2): 58–64.
- WOOD, D. (1974). A revision of *Chirita* (Gesneriaceae). *Notes Roy. Bot. Gard. Edinburgh* 33: 123–205.

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