# A new combination in *Liebigia* (Gesneriaceae)

D.J. Middleton

Herbarium, Singapore Botanic Gardens,
National Parks Board, 1 Cluny Road, Singapore 259569
david_middleton@nparks.gov.sg

ABSTRACT. The new combination *Liebigia barbata* (Jack) D.J.Middleton is made for the species previously known as either *Chirita asperifolia* (Blume) B.L.Burtt or *Liebigia speciosa* (Blume) DC. The complex nomenclatural history of these latter names is discussed. *Liebigia barbata* is neotypified.

***Keywords.*** *Chirita asperifolia*, *Didymocarpus*, lectotype, *Liebigia speciosa*, neotype, new combination, Sumatra, *Tromsdorffia*.

## Introduction

The genus *Liebigia* Endl. was described by Endlicher (1841) but was reduced to a section of *Chirita* Buch.-Ham. ex D.Don by Clarke (1883). When Wood (1974) revised *Chirita* he synonymised *Chirita* sect. *Liebigia* (Endl.) C.B.Clarke within *Chirita* sect. *Chirita* and included most of Clarke's species from *Chirita* sect. *Liebigia* within a very broadly defined *Chirita asperifolia* (Blume) B.L.Burtt, the remaining species being insufficiently known or unrelated. Hilliard (2004) resurrected *Chirita* sect. *Liebigia* and recognised 12 narrowly defined species. Weber et al. (2011) provided a detailed phylogenetic analysis of the relationships of the species of *Chirita* to each other and to the rest of the Gesneriaceae and concluded that *Liebigia* should be recognised at generic rank. They provided new combinations for 11 of the 12 species included by Hilliard (2004) and listed only the type, which they called *Liebigia speciosa* "(Blume) Endl." with *Chirita asperifolia* in synonymy, as not requiring a new combination in *Liebigia*. This is a mistake and a new combination for this species is still required in *Liebigia*.

***Liebigia barbata*** (Jack) D.J.Middleton, **comb. nov.**
Basionym: *Didymocarpus barbatus* Jack, Trans. Linn. Soc. London 14: 38 (1823). TYPE: Sumatra, Sumatra, Lintang River, *Forbes 2579* (neotype BM, designated here).

*Agalmyla asperifolia* Blume, Bijdr. Ned. Ind. 767 (1826). – *Busea asperifolia* (Blume) Miq., Fl. Ned. Ind. 2: 733 (1858). – *Dichrotrichum asperifolium* (Blume) C.B.Clarke in A.DC. & C.DC., Monogr. Phan. 5: 54 (1883). – *Tetradema asperifolium* (Blume)

Schltr., Notizbl. Bot. Gart. Mus. Berlin 7: 361 (1920). – *Didymocarpus asperifolius* (Blume) Bakh.f. in Backer, Beknopte Fl. Java, Afl. ix a. Fam. 195, 8 (1949); Bakh.f., Blumea 6: 394 (1950). – *Chirita asperifolia* (Blume) B.L. Burtt, Notes Roy. Bot. Gard. Edinburgh 24: 41 (1962). TYPE: Java, *Blume* (lectotype L, designated by Wood (1974: 182)).

*Tromsdorffia speciosa* Blume, Bijdr. Ned. Ind. 763 (1826). – *Liebigia speciosa* (Blume) DC., Prod. 9: 259 (1845). – *Chirita blumei* C.B.Clarke in A.DC. & C.DC., Monogr. Phan. 5: 122 (1883). TYPE: Java, *Blume* (lectotype L [L0003333], designated here).

Further synonyms are listed by Hilliard (2004) under the name *Chirita asperifolia* (Blume) B.L.Burtt.

Blume (1826) published the two new genera *Agalmyla* Blume and *Tromsdorffia* Blume which included, amongst others, the species *Agalmyla asperifolia* Blume and *Tromsdorffia speciosa* Blume. Endlicher (1841) replaced *Tromsdorffia* by the new generic name *Liebigia* Endl. because *Tromsdorffia* Blume is a later homonym of *Trommsdorffia* Bernh. Clarke (1883) and Weber et al. (2011) treated *Liebigia speciosa* as having been published by Endlicher. However, Endlicher (1841) did not mention any species names in his publication of *Liebigia* so the supposed combination "*Liebigia speciosa* (Blume) Endl." (1841) does not in fact exist. Instead, the first valid publication of this combination was by Candolle (1845). Clarke (1883) transferred *Tromsdorffia speciosa* Blume, and combinations based on it, to *Chirita* under the name *C. blumei* C.B.Clarke due to the unavailability of the epithet *speciosa* in *Chirita*.

Bakhuizen van den Brink (1950) later noted that *Agalmyla asperifolia* and *Tromsdorffia speciosa* are conspecific and synonymised them under the name *Didymocarpus asperifolius* (Blume) Bakh.f. Burtt (1962) agreed with the synonymy and transferred the species back to *Chirita* as *C. asperifolia* (Blume) B.L.Burtt. Wood (1974) and Hilliard (2004) also recognised the synonymy and treated this species as *Chirita asperifolia*. Weber et al. (2011), when resurrecting *Liebigia*, took up the name *Liebigia speciosa*, presumably believing that in *Liebigia* the epithet *speciosa* could again be used as it would not be a later homonym and had priority over *asperifolia.*

*Agalmyla asperifolia* Blume and *Tromsdorffia speciosa* Blume were simultaneously published by Blume and have equal priority. Under Art. 11.5 of the ICN (McNeill et al., 2011) the author who first places one name in synonymy of the other establishes the priority. This was done by Backhuizen van den Brink (1950) when making the combination *Didymocarpus asperifolius*. He included *Tromsdorffia speciosa* in synonymy, thereby establishing the priority of *Agalmyla asperifolia* over *Tromsdorffia speciosa.* Even if Endlicher (1841) had validly made the combination *Liebigia speciosa* this would not have established the priority of that epithet. Despite the backwards and forwards competition between the epithets *speciosa* and *asperifolia* it is quite clear that *asperifolia* has priority and that, in the absence of other factors, a new combination in *Liebigia* would have been necessary.

The most important element of this problem, however, was also overlooked

by Weber et al. (2011) in that neither *Agalmyla asperifolia* Blume nor *Tromsdorffia speciosa* Blume is the oldest name for this taxon. Hilliard (2004) included *Didymocarpus barbatus* Jack in synonymy of *Chirita asperifolia* whilst noting that this conclusion was based on the description alone as the type material is lost. *Didymocarpus barbatus* Jack from 1823 has priority over *Agalmyla asperifolia* Blume from 1826 but in *Chirita* the epithet *barbata* is not available due to *Chirita barbata* Sprague (which is now *Microchirita barbata* (Sprague) A.Weber & D.J.Middleton). However, in *Liebigia* there is no such impediment and a new combination can be made. Although the type material, which was collected in southern Sumatra, is lost Jack (1823) provided a very thorough and unmistakable description such that we can be confident it is the same taxon. Therefore, as well as the new combination, a neotype is proposed for this name. The specimen chosen as neotype, *Forbes 2579*, is also a syntype of *Chirita forbesii* Ridl. *nom. illeg.* and *Chirita ridleyandra* S.Moore.

ACKNOWLEDGEMENTS. This research is funded by the National Parks Board, Singapore. I am very grateful to Jana Leong-Škorničková for guiding this paper through the review process and to John McNeill for alerting me to a name I had overlooked when tackling this problem. I also thank Roxali Bijmoer of Naturalis in Leiden, Netherlands, for her help with specimens in Naturalis.

## References

Bakhuizen van den Brink, R.C. (1950). Notes on the Flora of Java VI. *Blumea* 6: 363–406.

Blume, C.L. (1826). *Bijdragen tot de Flora van Nederlandsch Indie*. Batavia: Lands Drukkerij.

Burtt, B.L. (1962). Studies in the Gesneriaceae of the Old World XXII: Miscellaneous transfers and new species. *Notes Roy. Bot. Gard. Edinburgh* 24: 41–49.

Candolle, A.P. de (1845). *Cyrtandraceae*. *Prodromus systematis naturalis regni vegetabilis* 9: 258–286, 564. Paris: Treuttel & Würtz.

Clarke, C.B. (1883). *Cyrtandreae*. In: Candolle, A. de & Candolle, C. de (eds) *Monographiae phanerogamarum* 5: 1–303. Paris: Masson.

Endlicher, S.L. (1841). *Genera Plantarum*, suppl. 1. Wien: Fr. Beck.

Hilliard, O.M. (2004). A revision of *Chirita* sect. *Liebigia* (Gesneriaceae). *Edinburgh J. Bot.* 60: 361–387.

Jack, W. (1823). On Cyrtandraceae, a new natural order of plants. *Trans. Linn. Soc. London* 14: 23–45.

McNeill, J., Barrie, F.R., Buck, W.R., Demoulin, V., Greuter, W., Hawksworth, D.L., Herendeen, P.S., Knapp, S., Marhold, K., Prado, J., Prud'homme van Reine, W.F., Smith, G.F., Wiersema, J.H. & Turland, N.J. (2012). *International Code of Nomenclature for algae, fungi, and plants (Melbourne Code)*. Königstein: Koeltz Scientific Books. [Regnum Veg. 154]

Weber, A., Middleton, D.J., Forrest, A., Kiew, R., Lim, C.L., Rafidah, A.R., Sontag, S., Triboun, P., Wei, Y.-G., Yao, T.L. & Möller, M. (2011). Molecular systematics and remodelling of *Chirita* and associated genera (Gesneriaceae). *Taxon* 60: 767–790.

Wood, D. (1974). A revision of *Chirita* (Gesneriaceae). *Notes Roy. Bot. Gard. Edinburgh* 33: 123–205.