# FRIEDRICH DIETRICH V. KURT SPRENGEL AND THEIR, LARGELY AMERICAN, PLANT-NAMES

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#### ABSTRACT

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The vexing literary relationship between Kurt Sprengel and Friedrich Dietrich appears to have led to some of Dietrich's work being willfully disregarded and subsequently forgotten/extinguished/suppressed. Examination of Dietrich's oeuvre leads to the rehabilitation of fifteen of his new combinations, making securer by up to 175 years, some names in current use for largely New World plants. To take into account Dietrich's work as a whole, four new combinations and three nomina nova are proposed with the help of authorities in the germane plant groups: Caamembeca andina (A.W. Benn.) J.F.B. Pastore & Mabb. (Bolivia), Callicarpa ekmanii I.E. Méndez & Mabb. (Cuba), Clematis wangiana Mabb., (Madagascar), Coleataenia pulchra (F. Dietr.) Mabb. & LeBlond (USA), Packera dubia (Spreng.) Trock & Mabb. (USA), Piper samainianum Mabb. (Peru), Rostellularia vahliana (Schult.) Mabb. (south Asia), for which a lectotype is designated, with other adjustments of names in Besleria (B. formosa now B. amabilis, tropical America), Oxalis (O. eckloniana now O. biloba, South Africa), Passiflora (P. arborea now P. magnoliifolia, Colombia), Ribes (R. ruizii now R. sylvestre, Chile), and possibly Tocoyena (South America), while further work on Lupinus is called for.

#### RESUMEN

La irritante relación literaria entre Kurt Sprengel y Friedrich Dietrich parece haber llevado a que algunos de los trabajos de Dietrich sean ignorados y posteriormente olvidados/extinguidos/suprimidos. El estudio de la obra de Dietrich lleva a la rehabilitación de quince de sus nuevas combinaciones, haciendo más seguros por hasta 175 años, algunos nombres en uso actual para plantas en su mayoría del Nuevo Mundo. Para tener en cuenta el trabajo de Dietrich en su conjunto, se proponen cuatro nuevas combinaciones y tres nomina nova con la ayuda de las autoridades de los grupos de plantas relacionadas: **Caamembeca andina** (A.W. Benn.) J.F.B. Pastore & Mabb. (Bolivia), **Callicarpa ekmanii** I.E. Méndez & Mabb. (Cuba), **Clematis wangiana** Mabb., (Madagascar), **Coleataenia pulchra** (F. Dietr.) Mabb. & LeBlond (EE. UU.), **Packera dubia** (Spreng.) Trock & Mabb. (EE. UU.), **Piper samainianum** Mabb. (Perú), **Rostellularia vahliana** (Schult.) Mabb. (Asia meridional) para el cual se designa un lectotipo, con otros ajustes de nombres en *Besleria* (*B. formosa* ahora **B. amabilis**, América tropical), *Oxalis* (*O. eckloniana* ahora **O. biloba**, Sudáfrica), *Passiflora* (*P. arborea* ahora **P. magnoliifolia**, Colombia), *Ribes* (*R. ruizii* ahora **R. sylvestre**, Chile) y posiblemente *Tocoyena* (América del Sur), mientras que se requiere más trabajo sobre *Lupinus*.

#### INTRODUCTION

One of the botanical giants of the nineteenth century was Robert Brown (1773–1858) of the British Museum, commemorated in the term Brownian Movement. He effectively re-introduced to English-speaking botanists the natural system of classification, was a pioneer of plant geography, named the nucleus in cells, and was the first to describe what we now call protoplasmic streaming and meiosis (Mabberley 1985b). Although working on very many different groups of plants from all over the world, Brown's greatest taxonomic work was on the flora of Australia.

Compilation of a Robert Brown eponymy (Mabberley 2020), including toponyms, phenomena, and

names of animals as well as of plants, revealed a number of neglected eponyms, two of them the earliest valid names for Australian plants, namely Dendrobium brownii F. Dietr. (1824; D. discolor Lindl. [1841], Orchidaceae) and Plantago brownii F. Dietr. (1820; P. triantha Spreng. [1824], Plantaginaceae), both published in an otherwise well-known work. The author was intrigued to understand how these names, commemorating such a major figure, came to be disregarded—and the lockdown in New South Wales due to COVID-19 provided the opportunity for him to attempt to get to the bottom of the matter.







Fig. 1. Friedrich Gottlieb Dietrich (1768–1850). Portrait from Vollständiges Fig. 2. Kurt Polycarp Joachim Sprengel (1766–1833). Courtesy of Hunt Lexicon (Dietrich 1802—1840). Courtesy of the Peter H. Raven Library, Missouri Institute for Botanical Documentation, Carnegie Mellon University, Botanical Garden.

Pittsburgh, PA.

Friedrich Gottlieb Dietrich ("F. Dietr," 1768–1850) (Fig. 1) was a German botanist, the grandson of Adam Dietrich (1711–82), a correspondent of Linnaeus (Jäger 1850; Arber 1946); Adam's great-grandson doctor was the cruel husband of (Konkordie) Amalie Dietrich (née Nellen, 1821–91), an intrepid plant-collector in northern Australia, 1863-72 (Bischoff 1931), commemorated in many plant-names and a street in Canberra, ACT, Australia.

On a botanical expedition in the Jena area of Germany, Friedrich Dietrich met the great polymath ennobled by Karl August Grand Duke of Sachsen-Weimar-Eisenach in 1782, Johann Wolfgang von Goethe (1749-1832), whom Dietrich accompanied on a journey (for a "cure" for Goethe) to Karlsbad in Bohemia (now Karlový Vary, Czech Republic) in 1785. Goethe was very impressed with the youthful, handsome, and enthusiastic Dietrich and made it possible for him to finish his schooling, after which, he and the Duke supported Dietrich's further botanical education in Jena. Dietrich, working for the Duke, provided plants to Goethe, who was by now favoring a natural system of classification—as opposed to the Linnaean one (Arber 1946; Polianski 2004; Lack 2019), and is said to have helped him with his ground-breaking Versuch die Metamorphose der Pflanzen zu erklären (Metamorphosis of plants, 1790), which was the first clear enunciation of what is now called homology in biology. Goethe and the Duke also made it possible for Dietrich to visit England, in particular Kew Gardens and the Chelsea Physic Garden in London.

It is recorded that in 1845 Dietrich became director of the ducal botanical gardens in Eisenach and Wilhelmstal, Germany. He was awarded his doctorate and appointed professor of botany by the Grand Duke, whose court was known for its intellectual brilliance. From 1802 to 1840 Dietrich wrote the 30 volumes of his monumental *Vollständiges Lexicon der Gärtnerei und Botanik: oder alphabetische Beschreibung vom Bau, Wartung und Nutzen aller in- und ausländischen, oekonomischen, officinellen und zur Zierde dienenden Gewächse*, 1802–10, 10 vols. [the first two later revised, 1820–24; not seen]; Nachträge, 10 vols., 1815–21; neuer Nachtrag, 10 vols., 1825–40. The first volume has a dedication to Johann Matthäus Bechstein (1757–1822, the German naturalist), Johann Jacob Roemer (1763–1819, professor of botany in Zurich, Switzerland), and Carl Ludwig Willdenow (1765–1812 of Berlin, Germany). The last volume of all has general chapters on botany, including botanical history and a discussion of Goethe's work, complete with a natural classification, largely following the work of Ludwig Reichenbach (1793–1879), arranged by family and genus with cross-references to the germane entries in the earlier volumes of the three series.

While compiling his *Lexicon*, Dietrich built up a herbarium of some 8000 sheets but, although it was offered for sale on his death (see Stafleu & Cowan 1976:653), it is lost (H. Manitz in pers. comm. from H.-W. Lack, 11 May 2020). Dietrich was commemorated in the generic name *Dietrichia* Tratt. (= *Crassula* L., Crassulaceae).

There are in IPNI/POWO (International Plant Names Index/Plants of the World Online) some 200 Dietrich plant-names, largely from his *Lexicon* and its supplements, which works can therefore be considered rather well known. It is notable, however, that some additional Dietrich binomials have been picked up, by the compilers of *Index Londinensis* and others, and some generic ones, e.g., *Tapeinia* F. Dietr., by ING, though these have not so far been registered by IPNI, POWO, etc. (see Mabberley 2018b for general discussion of such lack of concordance).

It has often been puzzling to the author that a number of *Index Kewensis* (IK) entries refer to Dietrich's names as "ex Steudel" and were never followed through to their original publication, so obviously do not appear correctly in modern databases, largely derived from IK and subsequently IPNI (and now POWO). The starting-point for the original IK was an annotated interleaved copy of Steudel's *Nomenclator botanicus* ed. 2 (1840–1; but, even so, see Mabberley 1980a & 2001). Much of IK was based on other secondary sources (Meikle 1971; Mabberley 1991), the original compiler, Benjamin Daydon Jackson, admitting, "By experiment I found that up to 1850 practically all [sic] names were accounted for in the main [secondary] works consulted" (quoted in Meikle 1971, who added, "As a result many errors, some of them very serious ones, often affecting the priority of a name, were innocently incorporated in the Index"), while some new combinations were perhaps disregarded because of the Kew Rule (Meikle 1971; Stevens 1991). The question therefore turns to why Dietrich's 30 volumes of up-to-date taxonomic (and horticultural) information were in part neglected by those secondary sources.

Kurt Polycarp Joachim Sprengel ("Spreng.," 1766–1833) (Fig. 2), son of Joachim Sprengel (who was a half-brother of the pioneering naturalist Christian Konrad Sprengel [1760–1816], commemorated in the Australian genus, *Sprengelia* Sm., Ericaceae), was a German doctor and botanist living in Halle, Germany, in 1797 becoming full university professor there (in succession to his father-in-law, Johann Reinhold Forster [1729–1798], naturalist on James Cook's second voyage to the Pacific [Garnock-Jones 1986]): "Worlds apart in hierarchyminded nineteenth-century Germany" [Walter Lack, pers. comm., 3 Jun 2020) from Dietrich. Sprengel was commemorated in *Sprengelia* Schult. (= *Melhania* Forssk., Malvaceae). Among his many publications was a horticultural serial, *Gartenzeitung* (4 vols., Halle, 1803–06), but he is largely remembered now in the thousands of names coined in his compiling of an edition of Linnaeus's *Systema vegetabilium* (5 vols., [1824] 1825–28), which was associated with a large reference herbarium. Seemann (1863) scathingly wrote, "Sprengel's herbarium, valuable to some public collection on account of the number of ill-described and wrongly-named specimens which the author of the 16th edition of the 'Systema Vegetabilium' has made, has been entirely dismembered, and sold in small portions to different individuals and institutions."

In the formidable bibliography to his Systema, Sprengel (Syst. Veg. 4 cur. post. 356. 1827) cited Dietrich's

*Lexicon* (though, perhaps suspiciously, not its supplements), but a close reading of his text shows that he did more than cite it, in that he plagiarized that work (including the supplements), even so far as slavishly copying, verbatim, errors made by Dietrich, a striking example being a name attributed to no less than Robert Brown:

1\*Samolus campanuloides R. Br. ex F. Dietr , Nachtr. Vollst. Lex G\u00e4rtn, 7:463. 1821; Spreng , Syst. Veg. 1:702. 1825 ≡ S. porosus (L.f.) Thunb. Basionym: \*Campanula porosa L.f., Suppl. 142. 1782. Type: SOUTH AFRICA. Western Cape Province: Thunberg s.n. in Herb. Linn. 221.27 (HOLOTYPE: LINN).

Notes.—Likely some confusion, as the binomial, not found in any Brown publications or MSS (BM; Mabberley & Moore 2020), is a superfluous one for *S. porosus* (L.f.) Thunb., Fl. Cap. 2:32. 1818 (and Dietrich's Latin description is largely Thunberg's, verbatim), while the next species in Thunberg's own work is *Polemonium campanuloides* L.f., Suppl. 139 1782 (≡ *Prismatocarpus campanuloides* (L.f.) Sond.). Why Dietrich attributed it to Brown is unclear, though he cited other truly Brownian species from Australia in his account of the genus. *Samolus porosus* has been confused with \**S. africanus* (L.) Burm.f., Fl. Ind. 51. 1768, based on *S. valerandi* L. var. *africanus* L., Sp. Pl. 1:172. 1753, of which the only surviving original material is the plate, Walther, Desig. Pl. t. 23. 1735, which does not resemble *S. porosus*, particularly clearly with regard to the shape of the leaves. I am grateful to Peter Goldblatt and John Manning for help with this matter.

On the other hand, Sprengel seems to have deliberately replaced many of Dietrich's nomina nova published in the *Lexicon* with his own, again without citing Dietrich's in, for example, names in current use, *Plantago triantha* Spreng. for *P. brownii* F. Dietr. (Mabberley 2020) and *Passiflora arborea* Spreng. for *P. magnoliifolia* F. Dietr. (see below), but many more replacements of names not now in use, all of which Sprengel names were illegitimate (superfluous) when published. Sprengel was of course not original in this deplorable habit, perhaps the most notorious practitioner being Richard Anthony Salisbury (Mabberley 1985b:149–156, 1991, 2019:124, 126–27) of the same era (see, for example, his superfluous re-namings under *Packera dubia* and *Coleataenia pulchra* below). Another Sprengel example among the many detected by the author is "*Asclepias jacquiniana* Spreng, Syst. Veg. 4, cur. post. 341. 1827," disregarding the homotypic earlier homonym, \**Asclepias jacquiniana* F. Dietr., Neu. Nachtr. Vollst. Lex. Gärtn 1:411. 1825 (nom. superfl., illeg., based on *A. filiformis* Jacq. [1760] = **Funastrum clausum** (Jacq.) Schltr., from the tropical and subtropical Americas).

Moreover, it is revealing to note that in the earlier edition of the Systema, by Roemer and Schultes, Schultes certainly acknowledged Dietrich's work and dealt with it appropriately (see Justicia vahlii below), yet Sprengel did not, even though the Schultes work is in his bibliography (p. 374). So, was there more than carelessness to Dietrich v. Sprengel? Was Sprengel jealous of Dietrich and his patronage by Goethe, or disdainful of (the "mere") ducal gardener Dietrich's (more original) work in that somewhat unconventional and heterodox milieu? That Sprengel copied parts of Dietrich's text, yet did not even cite at least some of Dietrich's new combinations and nomina nova, indeed suggests some kind of enmity or antagonism, snobbery or prejudice, rather than innumerable slips of the pen (cf. Polianski 2004). Nonetheless, Sprengel's work, with all its faults and apparent injustices, was cloaked in the contemporary respectability of being a "new" edition of Linnaeus's Systema, presented entirely in Latin (rather than with German) and in the scholarly Linnaean manner (rather than the practical alphabetical order of Dietrich, accessible to horticulturists as well as botanists—likely under the influence of Goethe, who had by then rejected the Linnaean stranglehold on the central European botanical establishment of the time), and so was swept into the scientific mainstream—and the secondary sources used by IK. Although some of Dietrich's extinguished names were taken up in other German works (see below), many have otherwise been generally disregarded, apparently not least because of what Sprengel—as part of "the establishment"—had, apparently willfully, done.

Despite all this, Dietrich names in current use (though some even now not noticed in IPNI/POWO), almost all from his *Lexicon*, include (to take a range of families and countries) **Convolvulus massonii** F. Dietr. (Convolvulaceae, Madeira), **Festuca carpatica** F. Dietr. (Poaceae, Carpathians), **Helwingia japonica** (Thunb.) F. Dietr. (Helwingiaceae, East Asia), **Hibiscus prunifolius** F. Dietr. (Malvaceae, Guyana), \***Linaria caesia** 

<sup>1\* =</sup> correction or addition to IPNI, POWO and other databases.

(Pers.) F. Dietr., Nachtr. Vollst. Lex. Gärtn. 4:409. 1818 (Plantaginaceae, southwest Europe), **L. pyramidalis** (Vent.) F. Dietr. (West Asia), and **Pelargonium praemorsum** (Andrews) F. Dietr. (Geraniaceae, South Africa), or are basionyms of currently accepted species names e.g., *Amaryllis arvensis* F. Dietr. (≡ **Pyrolirion arvense** (F. Dietr.) Erhardt et al., Amaryllidaceae, Peru), *Galega florida* F. Dietr. (≡ **Tephrosia florida** (F. Dietr.) C.E. Wood, Fabaceae, southeast USA), *Hedysarum glomeratum* F. Dietr. (≡ **Sulla glomerata** (F. Dietr.) B.H. Choi & H. Ohashi, Fabaceae, Mediterranean), and *Justicia pumila* F. Dietr. (≡ **Anisacanthus pumilus** (F. Dietr.) Nees, Acanthaceae, Mexico).

Self-isolation in the Blue Mountains of New South Wales in 2020, because of the COVID-19 pandemic, provided the author with the uninterrupted opportunity to examine in full Dietrich's *Lexicon* and supplements, some 21 000 pages in 30 volumes—as they are on-line, leading to very interesting findings (see below). Most of the "Steudel" names discussed above, like the others so far recorded, besides some completely passed over, as in the Australian examples above, were validly published in the *Lexicon* and its supplements. All unlisted, or erroneously listed, Dietrich names are being referred to the editors/compilers of IPNI/POWO.

#### Dietrich's Lexicon and largely American plant-names

Most remarkably, this very overdue full recognition of Dietrich's extraordinary achievement most affects the names of American plants, especially with regard to his new combinations, that are currently accepted binomials. Had the original compilers of *Index Kewensis* had the time, inclination, or resources, these names would have been listed long ago and subsequent workers, some up to 175 years later, would have been spared going to the trouble of making new combinations, which are now seen to be isonyms. These binomials are, of course, made more secure by the (if somewhat belated) recognition of Dietrich's thorough work:

 \*Cirsium nivale (Kunth) F. Dietr., Neu. Nachtr. Vollst. Lex. Gärtn. 2:577. 1828; Sch.-Bip. in Seem., Bot. Voy. Herald 312. 1856, isonym—Asteraceae.

BASIONYM: Cnicus nivalis Kunth, Nov. Gen. Sp. 4:18 (ed. fol.). 1818.

Distribution.—Mexico.

2. \*Lonicera hispidula (Lindl.) F. Dietr., Neu. Nachtr. Vollst. Lex. Gärtn. 5:293. 1836; Loud., Arb. Fruct. Brit. 4:2572. [?before] 1838; ["D. Dietr."] Steud , Nomencl. ed. 2, 2:67. Mar. 1841; Torr. & A. Gray, Fl. N. Amer. 2:8. May 1841, isonyms—Caprifoliaceae.

BASIONYM: Caprifolium hispidulum Lindl., Bot. Reg. 21: t. 1761. 1835.

Distribution.—Western United States.

**3. \*Microstachys bidentata** (Mart.) F. Dietr., Neu. Nachtr. Vollst. Lex. Gärtn. 5:556. 1836; Esser, Kew Bull. 53:958. 1999, isonym—Euphorbiaceae.

BASIONYM: Cnemidostachys bidentata Mart., Flora 7, Beil. 4:137. 1824.

Distribution.—Tropical South America.

**4.** \*Microstachys daphnoides (Mart.) F. Dietr., Neu. Nachtr. Vollst. Lex. Gärtn. 5:555. 1836; Muell. Arg., Linnaea 32:91. 1863, isonym—Euphorbiaceae.

Basionym: Cnemidostachys daphnoides Mart., Flora 7(1), Beil.:139. 1824.

Distribution.—Brazil.

5. \*Microstachys glandulosa (Mart.) F. Dietr., Neu. Nachtr. Vollst. Lex. Gärtn. 5:556. 1836; Esser & M.J. Silva, Phytotaxa 32:19. 2011, isonym—Euphorbiaceae.

Basionym: Cnemidostachys glandulosa Mart., Flora 7(1), Beil.:139. 1824.

Distribution.—Brazil.

 \*Microstachys hispida (Mart.) F. Dietr., Neu. Nachtr. Vollst. Lex. Gärtn. 5:556. 1836; Govaerts, World Checkl. Euphorb. 3:1190. 2000, isonym—Euphorbiaceae.

BASIONYM: Cnemidostachys hispida Mart., Flora 7(1), Beil.:138. 1824.

Distribution.—Brazil to northern Argentina.

7. \*Microstachys marginata (Mart.) F. Dietr., Neu. Nachtr. Vollst. Lex. Gärtn. 5:555. 1836; Muell. Arg., Linnaea 32:90. 1863, isonym—Euphorbiaceae.

BASIONYM: Cnemidostachys marginata Mart., Flora 7(1), Beil.:137. 1824.

Distribution.—Brazil.

8. \*Microstachys serrulata (Mart.) F. Dietr., Neu. Nachtr. Vollst. Lex. Gärtn. 5:555. 1836; Muell. Arg., Linnaea 32:90. 1863, isonym—Euphorbiaceae.

Basionym: Cnemidostachys serrulata Mart., Flora 7(1), Beil.:137. 1824.

Distribution.—Brazil to Paraguay.

Similarly, there is a handful of other names in current use for plants native elsewhere, where the same positive outcome obtains:

1. \*Agathosma hispida (Thunb.) F. Dietr., Nachtr. Vollst. Lex. Gärtn. 1:126. 1815; Bartl. & H.L. Wendl., Beitr. Bot. 1:132. 1824, isonym—Rutaceae.

BASIONYM: Diosma hispida Thunb., Prodr. Fl. Cap. 42. 1794.

Distribution.—Western Cape, South Africa.

2. \*Agathosma ovata (Thunb.) F. Dietr., Nachtr. Vollst. Lex. Gärtn. 1:127. 1815; Pillans, J. S. Afr. Bot. 16:69. 1950, isonym—Rutaceae.

BASIONYM: Diosma ovata Thunb., Prodr. Fl. Cap. 43. 1794.

Distribution.—South Africa.

3. \*Armeria arenaria (Pers.) F. Dietr., Nachtr. Vollst. Lex. Gärtn. 1:313. 1815; Schult., Syst. Veg. ed. 15 bis 6:771. 1820, isonym—Plumbaginaceae.

BASIONYM: Statice arenaria Pers., Syn. Pl. 1:332. 1805.

Distribution.—Western Europe.

**4. \*Pelargonium campestre** (Eckl. & Zeyh.) F. Dietr , Neu. Nachtr. Vollst. Lex. Gärtn. 6:457. 1837; Steud., Nomencl. ed. 2, 1:771. 1840, isonym—Geraniaceae.

BASIONYM: Hoarea campestris Eckl. & Zeyh., Enum. Pl. Afric. Austral. 63. 1835.

Distribution.—East Cape, South Africa.

5. \*Pelargonium eupatoriifolium (Eckl. & Zeyh.) F. Dietr., Neu. Nachtr. Vollst. Lex. Gärtn. 6:458. 1837; Steud., Nomencl. ed. 2, 1:771. 1840, isonym—Geraniaceae.

BASIONYM: Hoarea eupatoriifolia Eckl. & Zeyh., Enum. Pl. Afric. Austral. 64. 1835.

Distribution.—South-west Cape, South Africa.

 \*Pelargonium ionidiflorum (Eckl. & Zeyh.) F. Dietr., Neu. Nachtr. Vollst. Lex. Gärtn. 6:461. 1837; Steud., Nomencl. ed. 2, 2:42 (1840), isonym (Geraniaceae).

BASIONYM: Ligularia ionidiflora Eckl. & Zeyh., Enum. Pl. Afric. Austral. 69. 1835.

Distribution.—East Cape, South Africa.

7. \*Pelargonium pilosellifolium (Eckl. & Zeyh.) F. Dietr., Neu. Nachtr. Vollst. Lex. Gärtn. 6:457. 1837; Steud., Nomencl. ed. 2, 1:771. 1840 [as "pillosellaeforme"], isonym (Geraniaceae).

Basionym: Hoarea pilosellifolia Eckl. & Zeyh., Enum. Pl. Afric. Austral. 61. 1835.

Distribution.—South-west Cape, South Africa.

Further adjustments for names of other New World plants are as follows. I am greatly indebted to specialists in the germane groups for their enthusiastic help and/or joining me in making requisite new combinations and nomina nova:

\*Besleria formosa F. Dietr , Neu. Nachtr. Vollst. Lex. Gärtn. 1:531. 1824; Reider, Geheim. Blum. Beschr. Kult.
 3:120. 1830 & Schnell Unter. Bot. Blum., ed. 2:89. 1847 = ? Chrysothemis pulchella (Sims) Decne.—Gesneriaceae.

Distribution.—Tropical America.

Notes [largely the work of John L. Clark].—Dietrich's description of the brightly colored calyx (red) and corolla (yellow) of his *B. formosa* strongly recalls *Chrysothemis pulchella*, but, only when Dietrich's herbarium is found, can this identification be confirmed. *Besleria formosa* F. Dietr. (1824) is the senior homonym of *B. formosa* C.V. Morton (1938), which is therefore illegitimate. In his treatment of the Gesneriaceae for the *Flora of Panama* Skog (1979) showed that *Besleria formosa* C.V. Morton and *B. amabilis* C.V. Morton (1939) are conspecific, and made the latter name a synonym of the former. As a result of Dietrich's work, **Besleria amabilis** C.V. Morton is here recognized as the correct name for this taxon.

Other "Besleria" species listed by Dietrich (t.c., pp. 532–33) are all Gesneriaceae except where indicated: Besleria sanguinea Pers. ≡ Columnea sanguinea (Pers.) Hanst.; B. cristata L. ≡ Crantzia cristata (L.) Scop.; B. incarnata Aubl. ≡ Sinningia incarnata (Aubl.) D.N. Denham; Besleria lutea L.; B. serrulata Jacq. ≡ Drymonia serrulata (Jacq.) Mart.; B. bivalvis L.f. ≡ Mendoncia bivalvis (L.f.) Merr.—Acanthaceae; B. melittifolia L. ≡ Chrysothemis melittifolia (L.) M.M. Mora & J.L. Clark; Besleria coccinea Aubl. ≡ Drymonia coccinea (Aubl.) Wiehler; B. violacea Aubl. ≡ Schlegelia violacea (Aubl.) Griseb.—Schlegeliaceae.

**2.** \**Callicarpa floccosa* F. Dietr., Neu. Nachtr. Vollst. Lex. Gärtn. 2:210. 1826, nom. illegit., superfl. = *C. acuminata* Kunth—Lamiaceae.

Distribution.—Tropical America.

*Notes* [with Isidro E. Méndez Santos].—Dietrich's *Callicarpa floccosa* is a nomen superfluum for *C. subintegerrima* Kunth, Nov. Gen. Sp. (quarto ed.) 2:204. 1818 = *C. acuminata* Kunth, t.c. 252, but also the senior homonym of the illegitimate *C. floccosa* Urb. (1924), the name of a rarely collected Cuban endemic. As there are no synonyms for Urban's plant, the following nomen novum is proposed, to mark the outstanding contribution made to our knowledge of the flora of Cuba and Hispaniola by the collector of the type material, the Swedish botanist, Erik L. Ekman (1883–1931).

Callicarpa ekmanii I.E. Méndez & Mabb., nom. nov. ≡ C. floccosa Urb., Repert. Spec. Nov. Regni Veg. 20:345. 1924. nom. illeg., non C. floccosa F. Dietr. (1826). Type: CUBA. Santiago de Cuba Province: "Prov. Oriente, supra Daiquiri ad La Florida, in sylvis montanis umbrosis 750 m alt.," 28–29 Jun 1914, Ekman 1549b (S [S04-2577] Lectotype, designated (as "type" [cf. Art. 9.10 in Turland et al. 2018]) by Moldenke, Rep. Spec. Nov. Reg. Veg. 40:52. 1936); isolectotypes: B†, NY [NY00111214].

Distribution.—CUBA. Santiago de Cuba Province: Santiago de Cuba municipality, Sierra de la Gran Piedra, montane rain forest and cloud forest, 700–1200 m. Other specimens of this narrow endemic seen (Conservation status DD, González-Torres et al. 2016): Slopes of Gran Piedra, [7 Jun 1949], Clemente et al. 6698 (NY [NY1337528], HAC); Sierra Maestra, Gran Piedra, alrededores de la Isabelica, bosque pluvial montano (alterado), [14 May 1989], Gutiérrez et al. HFC 68145 (B [B100415682], HAJB); Gran Piedra, alrededores del antiguo cafetal La Isabelica, bosque pluvial montano, 75°37'01"W, 20°00'25"N, alt. 1150 m [18 Jun 2012], Köster et al. 2625 (B [B100487435], PAL-Gr [PAL-Gr 57833], HAJB). Gran Piedra, Ascenso al monolito, bosque pluvial montano, 75°37'39"W, 20°00'41"N, alt. 1200 m [18 Jun 2012], Köster et al. 2649 (B [B100487459], PAL-Gr [PAL-Gr 57868], HAJB).

- 3. \*Cineraria diversifolia F. Dietr., Neu. Nachtr. Vollst. Lex. Gärtn. 2:567. [May] 1826, nom. illegit. superfl., ≡ Packera dubia (Spreng.) Trock & Mabb., comb. nov.—Asteraceae.
  - BASIONYM: Cineraria dubia Spreng., Syst. Veg. 3:550. [Jan-Mar] 1826.
- ≡ Cineraria heterophylla Pursh, Fl. Amer. Sept. 2:528. 1813, nom. illeg. (non Ortega, Nov. Pl. Descr. Dec. 71, t. 10 fig. 2 [1798] = 
  Jacobaea minuta (Cav.) Pelser & Veldk. [Senecio minutus (Cav.) DC.]).
  - Senecio integrifolius Nutt. var. heterophyllus Nutt., Gen. 2:165.1818. Type: U.S.A. Pennsylvania: "on dry sunny rocks, in the Blue-Mountains [west of Carlisle, Cumberland Co.]," Pursh s.n. (not found; see Ewan 1979:68). If no authentic material can be located, a neotype should be designated (at PH there is further Pursh material from another locality).

Distribution.—U.S.A.

*Notes* [with Debra Trock].—Further synonymy:

- Senecio tomentosus Michx., Fl. Bor.-Amer. 2:119. 1803, nom. illeg. (non S. tomentosus Salisb., Prodr. 196. 1796, nom. illeg., superfl. pro S. cinerascens Aiton). Type: U.S.A. South Carolina. Kershaw Co.: "In Carolina loco dicto Flat.-roc," Michaux s.n. (Holotype: P-MICH n.v., MO photo).
  - ≡ \*Packera tomentosa C. Jeffrey in Kew Bull. 47:101. 1992, which is considered as a replacement name (ICN, Art. 58.1; Turland et al. 2018), and its specific epithet must in consequence give way to the synonymous C. dubia Spreng. (1826), the earliest available name at the species level.
- Cineraria integrifolia Jacq. ex Willd. var. minor Pursh, Fl. Amer. Sept. 2:528. 1813. Type: U.S.A. South Carolina, "in Carolina near Flat-rock," Kershaw Co., Michaux s.n. (HOLOTYPE: P-MICH n.v.; MO photo).

Note.—Pursh includes *S. tomentosus* Michx. and its type in his synonymy, but seems to have seen only a Lewis specimen from "the banks of the Missouri" (now lost—see Ewan 1979:69).

Senecio alabamensis Britton ex Small, Fl. S.E. US 1305. 1903. Type: U.S.A. Alabama. Henry Co.: Dothan, Earle 2038 (Holotype: NY[NY00232445]; ISOTYPE: NY[NY00232447]).

4. \*Lupinus odoratus F. Dietr., Neu. Nachtr. Vollst. Lex. Gärtn. 5:324. 1836. =?

*Note.*—This is an earlier homonym of *L. odoratus* A. Heller (1900), the name of a well-known species in southwest USA, so that conservation of Heller's name (or rejection of Dietrich's name) by authorities on the genus would perhaps be appropriate.

5. \*Panicum pulchrum F. Dietr., Nachtr. Vollst. Lex. Gärtn. 5:547. 1819 ≡ Coleataenia pulchra (F. Dietr.) Mabb. & LeBlond, comb. nov.—Poaceae.

Distribution.—U.S.A.

*Notes* [with Richard LeBlond].—*Panicum pulchrum* F. Dietr. is a nomen novum for *P. elongatum* Pursh. Other synonymy:

- = Panicum elongatum Pursh, Fl. Amer. Sept. 1:69. 1813, nom. illegit., nec Salisb., Prodr. Stirp. Chapel Allert. 18. 1796 = Setaria italica (L.)
  P. Beauv., non Poir. (1816) = S. poiretiana (Schult.) Kunth).
- ≡ Panicum stipitatum Nash in Britton, Manual Fl. N. States 83. 1901 & in Bull. Div. Agrost. USDA 17:56. 1901, nom. illegit., superfl. pro P. pulchrum F. Dietr.
- ≡ \*Coleataenia stipitata LeBlond, J. Bot. Res. Inst. Texas 5:448. 2011, q.v. for typification.

This name is considered as a replacement name (ICN, Art. 58.1; Turland et al. 2018), and its specific epithet must in consequence give way to the synonymous *P. pulchrum*, the earliest available name at the species level.

- 6. \*Passiflora magnoliifolia F. Dietr., Nachtr. Vollst. Lex. Gärtn. 5:617. 1819; Reider, Geheim. Blum. Beschr. Kult. 2:516. 1830?, n.v. & Schnell Unter. Bot. Blum. ed. 2:462. 1847—Passifloraceae.
  - $\equiv Passiflora\ glauca\ Bonpl.\ in\ Humb.\ \&\ Bonpl., Pl.\ Aequinoct.\ 1:76, t.\ 22.\ 1806, non\ Aiton, Hort.\ Kew.\ 3:308.\ 1789\ (=P.\ stipulata\ Aubl.).$
  - ≡ Passiflora arborea Spreng., Syst. Veg. 3:42. 1826, nom. illegit. superfl. pro P. magnoliifolia F. Dietr.

Distribution.—Colombia.

Notes [John MacDougal].—Sprengel brushed Dietrich's name aside; after Sprengel's death, Dietrich himself put the record straight in his Neu. Nachtr. Vollst. Lex. Gärtn. 6:420. 1837, correctly placing Sprengel's illegitimate Passiflora arborea in the synonymy of P. magnoliifolia. Of Dietrich's other new passionflower names, \*Passiflora × ambigua F. Dietr., Neu. Nachtr. Vollst. Lex. Gärtn. 6:419. 1837 is an invalidly published name applied to a hybrid passionflower with a five-lobed leaf, a violet flower, and very dark blue corona with white tips; based on the description of the leaf it is certainly a hybrid involving P. caerulea L., and matches P. × violacea Loisel. (1824); Dietrich wrote "[trans. J. MacDougal] In some gardens a Passiflora coerulea racemosa is cultivated, which I saw in bloom under this name on July 11, 1836 in the flower exhibition at Gotha, but it is different from the P. racemosa Brotero [Feb. 1818 = P. princeps G. Lodd. (Jan. 1818)—see Turner, 2016] and the P. coerulea racemosa Sabin. Lodd. Bot. Cabin. t. 573, because the peduncles are solitary in leaf axils as in P. coerulea Linn...[p. 419]." He continued, in the last sentence before introducing the name and description,

"... ich will sie vorläufig unter folgenden Namen aufführen und schildern [... I want to provisionally list and describe it under the following names.]." Dietrich compared his other hybrid, \* $Passiflora \times hybrida$  F. Dietr., Neu. Nachtr. Vollst. Lex. Gärtn. 6:416. 1837, nom. illeg. (non Nees & Sinning [1831] =  $P. \times violacea$ ), the "Bastard-Passionsblume, P. racemosa hybrida Hortulan." to P. racemosa (= P. princeps) stating that it is a hybrid involving that species and giving distinctions between the two: it is perhaps also referable to  $P. \times violacea$ . If Dietrich's herbarium is ever found, the identity of his two hybrids can be confirmed.

**7.** \*Piper peruvianum F. Dietr., Neu. Nachtr. Vollst. Lex. Gärtn. 7:34. 1837 ≡ **Peperomia haenkeana** Opiz—Piperaceae.

#### Distribution.—Peru.

Notes [with Marie-Stéphanie Samain].—Dietrich's Piper peruvianum is based on Peperomia haenkeana, the name of a very rare species from Peru, and the combination "Piper haenkeanum" could not be made, as that name was already in use for a species (now referred to P. caninum Blume) from Luzon, Philippines. The name of another rarely collected Peruvian species, Piper peruvianum (Miq.) C. DC. (1869), is therefore a later homonym, for which, in the absence of any synonyms, DJM proposes the following name, to mark the outstanding contribution made to our understanding of Piperaceae systematics by the Belgian-born botanist, Prof. dr. Marie-Stéphanie Samain (b. 1978):

## Piper samainianum Mabb., nom. nov. Basionym: Artanthe peruviana Miq., Syst. Piper. 482. 1844.

- Piper peruvianum (Miq.) C. DC. in DC., Prodr. 16:283. 1869, nom. illegit., non F. Dietr. (1837). Type: PERU. Department of Loreto: Maynas, "ad Maynas," Poeppig s.n. (B†, herb. Kunze [LZ]†, ?G n.v., syntypes; OXF 00190530I isosyn?), but description is indicated by Miquel as being based on a G specimen which cannot be found (Martin Callmander pers. comm., 29–31 May 2020), so perhaps that citation was confused by Miquel with the type of his var. laevigata on the same page (see below).
- [? Piper secundum Poeppig ex Kunth, Linnaea 13:612. 1840 (quoad spec. Poeppig (fruct.), "prope Huallaga Peruvianorum," n.v.), nom. illegit. (non P. secundum Ruiz & Pav. 1798)].

### Distribution.—Peru.

Artanthe peruviana was not listed in the synonymy of Candolle's Piper peruvianum, but one of its syntypes (now lost) was cited. Despite the apparently inadvertent omission of the putative basionym (not found anywhere in his treatment of the genus or the errata) by Candolle, his inclusion of one of its syntypes clearly shows his intent (ICN Art. 41.4; Turland et al. 2018). OXF has vegetative characters matching the species as currently understood, and may well be an isosyntype, but in the absence of inflorescences, it is not possible to be entirely certain so is tentatively cited here. If no other isosyntypes can be found (none found at BM, HBG, M, W), a neotype may need to be selected, likely a modern collection from among the *Piper* collections at USM, as soon as access is possible.

Friedrich Miquel's A. peruviana f. laevigata (Type: PERU/BRAZIL: Amazon, Poeppig 1037 (B lost, G G00203731 syn; G-DC G00341882, HAL 0101698 isosyn)  $\equiv$  P. pseudoperuvianum C. DC. (which may explain why, in POWO, A. peruviana is considered a synonym of the latter, while P. peruvianum is maintained as a separate species, though Trelease, Field Mus. Nat. Hist., Bot.13, 2:208.1936. has P. pseudoperuvianum as a synonym of P. peruvianum).

**8.** \**Polygala formosa* F. Dietr., Neu. Nachtr. Vollst. Lex. Gärtn. 7:143. 1821 = ? **P. myrtifolia** L.—Polygalaceae. *Distribution.*—South Africa.

Notes (with Floriano Pastore, who provided above the provisional placement of Dietrich's binomial, which can probably only be confirmed once Dietrich's herbarium is found).—In his *P. formosa*, Dietrich included, with some doubt, *P. grandiflora* Lodd., Bot. Cab. 13: t. 1227. 1827, nom. nud. [no analysis = *P. myrtifolia* "Grandiflora"], non Walter (1788 ≡ Asemeia grandiflora (Walter) Small). *Polygala formosa* F. Dietr. is an earlier homonym of the illegitimate *P. formosa* A.W. Benn. (1889), now seen to be the replaced name of *Caamembeca formosa* J.F.B. Pastore (2017; ICN, art. 58.1; Turland et al. 2018), which name must in consequence give way to the synonymous *Polygala andina* A.W. Benn. (1889), the earliest available name for this species:

- Caamembeca andina (A.W. Benn.) J.F.B. Pastore & Mabb., comb. nov. Basionym: \*Polygala andina A.W. Benn., Bull. Torrey Bot. Club 16:19. 1889. Type: BOLIVIA: La Paz [protologue "Near La Paz, 10,000 ft. (2869)"], [NY00259817], Rusby 2869 (HOLOTYPE: NY).
- 9. \*Ribes sylvestre F. Dietr., Nachtr. Vollst. Lex. Gärtn. 7:188. 1821—Grossulariaceae.
  - ≡ Ribes glandulosum Ruiz & Pav., Fl. Peruv. 3:13. 1802, non Weber (1784, an accepted North American species name).
  - ≡ Ribes ruizii Rehd., J. Arnold. Arbor. 1:255. 1920, nom. illegit., superfl. pro R. sylvestre F. Dietr., syn. nov.

Distribution.—Chile.

10. \*Tocoyena brasiliensis F. Dietr., Neu. Nachtr. Vollst. Lex. Gärtn. 9:1. 1838 ≡ Augusta longifolia (Spreng.) Rehder—Rubiaceae.

BASIONYM: Ucriana longifolia Spreng., Syst. Veg. 1:761. 1824, nec T. longifolia Poir. (1806 = T. longiflora Aubl.), non T. longifolia Kunth (1820 = Posoqueria latifolia (Rudge) Schult.).

Distribution.—Brazil.

Note.—The name of another Brazilian species, the later illegitimate homonym, *Tocoyena brasiliensis* Mart. (1841), unless conserved (or Dietrich's name rejected), would appear to have to be replaced by the synonymous **T. sprucei** Standl. (1931), unless it is returned to the synonymy of *T. sellowiana* (Cham. & Schldl.) K. Schum.

Finally, there is an even smaller number of adjustments to be made to names of plants from the Old World:

**1.** \**Clematis trifida* F. Dietr., Neu. Nachtr. Vollst. Lex. Gärtn. 3:16. 1834, nom. superfl., illegit. = **C. campestris** A. St.-Hil.—Ranunculaceae.

BASIONYM: Clematis triloba A. St.-Hil., Fl. Bras. Merid. 1:3.1824, non Thunb. (1800, an accepted African species name).

≡ Clematis hilarii Spreng., Syst. Veg. 5:177. 1828.

Distribution.—Subtropical and temperate South America.

Notes.—Clematis trifida F. Dietr. is the senior homonym of *C. trifida* Hook., Icon. Pl. 1: t. 79. 1837, the name of a species from Madagascar ≡ **Clematis wangiana** Mabb., **nom. nov.** Type: MADAGASCAR: (K000076022), *Lyall s.n.* (HOLOTYPE: K).

It is a great pleasure to be able to mark in this way the enormous contribution made to our worldwide knowledge of Ranunculaceae, over many decades, by Chinese botanist, Wang Wen-Tsai (b. 1926), who has worked on this taxon and concurs with the author's conclusions here.

It is conceivable that Dietrich was giving, the by then dead, Sprengel a "taste of his own medicine" in disregarding *Clematis hilarii* Spreng., in favor of his *C. trifida*.

**2.** \**Justicia vahlii* F. Dietr , Nachtr. Vollst. Lex. Gärtn. 4:218. 1818, nom. illeg., superfl. pro *J. comosa* Vahl = ?—Acanthaceae.

*Notes.*—Based on a South American specimen (*C*, not found, despite the efforts of Olof Ryding) from Van Royen's herbarium (*L*, where material is also not to be found, despite the efforts of Roxali Bijmoer), this is the senior homonym of *J. vahlii* Roth (1821); in 1822 the homonymy was addressed by Schultes (Mant. 1:142. 1822), who renamed Roth's plant *J. vahliana* as he had Dietrich's earlier *J. vahlii* correctly as a synonym of *J. comosa* Vahl, necessitating:

Rostellularia vahliana (Schult.) Mabb., comb. nov. Basionym: *Justicia vahliana* Schult., Mant. 1:138. 1822 (the binomial to be used when this taxon is treated in *Justicia* sensu lato). Type: INDIA: "Justicia diffusa" [Vahl, Enum. Pl. 1:141. 1804], *Rottler s.n.* (C10005022) in Herb. Vahl (lectotype, designated here: C).

- ≡ Justicia vahlii Roth, Nov. Pl. Sp. 14. 1821, nom. illeg., non J. vahlii F. Dietr. (1818).
- ≡ \*Rostellaria vahlii Nees in Wall., Pl. Asiat. Rar. 3:102. 1832, nom. illeg., superfl. (J. vahliana Schult. in syn.).
- ≡ \*Rostellularia vahlii Nees in DC., Prodr. 11:376. 1847, nom. illeg., superfl. (J. vahliana Schult. in syn.).

Distribution.—Pakistan, India, Bangladesh.

3. \*Oxalis eckloniana F. Dietr., Neu. Nachtr. Vollst. Lex. Gärtn. 6:313. 1837; Steud., Nomencl. ed. 2, 2:239. 1841, isonym = O. tenella Jacq.—Oxalidaceae.

BASIONYM: Oxalis divergens Eckl. & Zeyh., Enum. Pl. Afric. Austral. 1:92. 1835, non Benth. ex Lindl. (1833).

Distribution.—South Africa.

*Note.*—This is an earlier homonym of *O. eckloniana C*. Presl (1845), which, without conservation (or rejection of Dietrich's name), becomes **O. bifolia** Eckl. & Zeyh. (1835), the name of a conspecific plant. I am very grateful to Kenneth Oberlander (University of Pretoria) for help with this entry.

#### **FPILOGUE**

It is very regrettable that, as with the magisterial French work of George(s) Dumont de Courset in the two editions of his *Botaniste Cultivateur* (Mabberley 1999, 2004, 2019:142–143), another Continental European work, Dietrich's German compendium, like that of Wilhelm Petermann (Mabberley 1998), has not, in its entirety, received until now the international (initially imperial British) botanical attention it clearly warrants.

A series of papers, written in association with pursuit of precision in attribution of names, especially those formerly labeled "Hort." without any precision at all (Mabberley 1984, 1985c, 2017a), to be used in *Mabberley's Plant-book* (see Mabberley 2017b:xv) and monographic work on Meliaceae and Rutaceae (Mabberley 1977, 1982, 1985a, 1992), has attempted to put to rights these (apparently deliberate and in part chauvinistic or snobbish) oversights (Mabberley 1991). First addressed were similar contemporary British botanical and horticultural compendia, bestsellers in their time, particularly Robert Sweet's and John Claudius Loudon's (and his wife's) publications (Mabberley 1978, 1980a, 1980b, 1981, 1982, 1983), as well as the many editions of those books' successor, George Johnson's *Gardener's Dictionary* (1846–1917; Mabberley 1990), in the last editions of which, curiously, Kew botanists had a controlling hand. That book, in turn, led to Continental works (Mabberley 1984, 1998, 1999, 2004) and, also to the British *Illustrated Dictionary of Gardening* (1884–7, supplement 1900–01) by Kew's George Nicholson (and to Séraphin Mottet's French edition [1892–9] of it), until recently [Mabberley 2018a] also similarly neglected, yet the forerunner of today's standard work, the Royal Horticultural Society's *Dictionary of Gardening* (ed. 1, 1951–1956; ed. 2, 1995).

These findings have also been offered in an attempt to set the record straight and, in the spirit of the Australian "fair go" and British "fair play," to give credit where credit is due, in an attempt to counter the apparent snobbery, entitlement, chauvinism, xenophobia, nationalism, and other prejudices (Mabberley 1991, 2015), likely including misogyny (see Mabberley 1980c), exhibited by some of our predecessors in their work.

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