



Article

101 Nomenclatural Corrections in Preparation for the Plants of the World Online (POWO)

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Abstract

In preparation for Plants of the World Online (POWO), 101 new combinations and replacement names are published and also names in current use are validated, including 30 infraspecific names in the genus *Phyllica* L.

Keywords: new combinations, nomenclature, POWO, replacement names, valid publication

Introduction

The 2020 target 1 of the Convention for Botanical Diversity (CBD) is to create “An online flora of all known plants.” Kew’s answer to this is the Plants of the World Online (hereafter, POWO, <http://plantsoftheworldonline.org/>). POWO draws together Kew’s extensive data resources including its regional floras and monographs, alongside images from the digitisation of the collections. These data will then feed into the World Flora Online (WFO, <http://www.worldfloraonline.org/>) consortium. The taxonomic backbone of POWO is the World Checklist of Vascular Plants (WCVP) dataset, which is partly available online through the World Checklist of Selected Plant Families (WCSP) website (<http://wcsp.science.kew.org/>). The data compilation of this programme was started in 1988 and many nomenclatural issues were dealt with, sometimes resulting in new combinations and replacement names being indicated as “*ined.*” (*ineditus* [Latin] – unpublished) in the database and now visible online. Many of these have been validly published over the years either by contributors to the checklist or others. However, a significant group of names remain unpublished. As these names will now become part of POWO and feed into other databases, it has become essential to have these names validly published, so they can be legitimately used. The first 101 of these names marked as “*ined.*” are published here below. Most are needed because of nomenclatural reasons or because the new names represent the earliest available name for a particular published taxon circumscription. Others, as assigned in POWO, are straightforward transfers to other genera where no new combinations are yet available. Often researchers sink genera into synonymy but only make a limited number of combinations, often limited to the type species only, making it impossible to use these new

taxonomic insights and recognise the new generic circumscriptions in POWO. More details are given in the notes, including references to the taxonomy followed. Protologues have been consulted either in the library of the Royal Botanic Gardens, Kew, BHL (<http://www.biodiversitylibrary.org/>), GALLICA (<http://gallica.bnf.fr/>) or JSTOR (<https://www.jstor.org/>). All cited herbarium material has been seen by the author. More references regarding the taxonomy followed can be found on POWO or the WCSP websites. The references can be found under the accepted name and all its synonyms, in particular its homotypic synonyms. The author carefully deliberated whether each name in current use should be put forward for conservation. Only the names found to be rarely used or pertaining to taxa with limited distribution were considered for this paper. The new names are grouped under four headings which summarise the nomenclatural reasons for which the new names were needed. The groups include overlooked earlier synonyms, illegitimate names, names that are not currently validly published and orphan names. Within the headings, the names are listed alphabetically. The family names are listed for ease of use and follow Plants of the World (Christenhusz *et al.*, 2007, hereafter POW), which also provides the foundation for taxonomic concepts accepted here for the treatment of genera. Herbarium codes are given as in Index Herbariorum (Thiers, 2013 <http://sweetgum.nybg.org/science/ih/>). Nomenclatural decisions have been made in accordance with the International Code of Nomenclature for Algae, Fungi, and Plants (hereafter ICN) (Turland *et al.*, 2018).

Nomenclatural realignments for earlier synonyms and incorrect names

The following new combinations are needed because names put into synonymy by various authors turn out to be the earliest available ones. This is often the result of the purported basionym being illegitimate, incorrect dates being used or names in current use being transferred without due care of checking the full synonymy.

Acampe praemorsa var. *longepedunculata* (Trimen) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192138-1)

Basionym: *Acampe wightiana* var. *longepedunculata* Trimen, Syst. Cat. Fl. Pl. Ceylon: 90. 1885.

Family: Orchidaceae

Notes: Recently the combination *Acampe praemorsa* var. *rigida* (Buch.-Ham. ex Sm.) Barbhuiya & D.Verma & Vik.Kumar was published, but at the varietal level *A. wightiana* var. *longepedunculata* is an earlier available synonym (Dassanayake, 2000).

Acmispon decumbens (Benth.) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192139-1)

Basionym: *Hosackia decumbens* Benth., Bot. Reg. 12: sub t. 1257. 1829.

Family: Fabaceae

Notes: This species is currently known under the later incorrect name *Acmispon nevadensis* (S.Watson) Brouillet, which is superfluous, as the name *H. decumbens* Benth. was listed in synonymy when the combination was made.

Acmispon decumbens var. *davidsonii* (Greene) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192140-1)

Basionym: *Lotus davidsonii* Greene, Erythea 1(10): 207. 1893.

Family: Fabaceae

Notes: This new combination is needed because of the above change in species name.

Acmispon tomentosus (Hook. & Arn.) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192141-1)

Basionym: *Hosackia tomentosa* Hook. & Arn., Bot. Beechey Voy. 137. 1832.

Family: Fabaceae

Notes: This species is currently known under the later superfluous name *Acmispon heermannii* var. *orbicularis* (A.Gray) Brouillet for which the name *H. tomentosa* Hook. & Arn. was listed in synonymy. As the name *H. tomentosa* (1832) is earlier than *H. heermannii* which has priority from 1855, the epithet 'tomentosa' should have been used for this taxon.

Acmispon tomentosus var. *glabriusculus* (Hook. & Arn.) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192142-1)

Basionym: *Hosackia decumbens* var. *glabriuscula* Hook. & Arn., Bot. Beechey Voy. 137. 1832.

Family: Fabaceae

Notes: This new combination is needed because of the above change in species name. This variety is currently known under the superfluous name *Acmispon heermannii* (Durand & Hilg.) Brouillet var. *heermannii*.

Acranthera virescens (Ridl.) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192143-1)

Basionym: *Gardenia virescens* Ridl., J. Fed. Malay States Mus. 4: 32. 1909.

Family: Rubiaceae

Notes: When publishing the name *Acranthera pulchella* K.M.Wong, the author listed *G. virescens* Ridl. as a new synonym and assumed his new name was a combination of *G. pulchella* Ridl. This name is however illegitimate because of the earlier *G. pulchella* G.Don. The name *G. virescens* Ridl. therefore becomes the earlier available name and *A. pulchella* K.M.Wong is an illegitimate superfluous replacement name.

Amorphophallus flotoi (S.Y.Hu) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192144-1)

Basionym: *Pseudodracontium flotoi* S.Y.Hu, Dansk Bot. Ark. 23: 443. 1968.

Family: Araceae

Notes: This is an earlier available name for *A. pseudoharmandii* Hett. & Claudel., following the species concept of Serebryany (1995).

Betula × *intermedia* nothovar. *sukatschewii* (Soczava) Govaerts, **comb. et stat. nov.**

(urn:lsid:ipni.org:names: 77192145-1)

Basionym: *Betula* × *sukatschewii* Soczava, Ochr. Fitos. Fitogeogr.: 393. 1929.

Family: Betulaceae

Notes: This is the correct name for the hybrid formula *B. nana* L. × *B. pubescens* var. *pumila* (L.) Govaerts for which the name *B.* × *sukatschewii* Soczava is at the wrong rank (ICN Art. H.5.2.).

Cenchrus × *cupreus* (Thore) Govaerts, **comb. nov.**

(*C. elegans* (Hassk.) Veldkamp × *C. setaceus* (Forssk.) Morrone)

(urn:lsid:ipni.org:names: 77192146-1)

Basionym: *Pennisetum cupreum* Thore, Horticulture (Boston) 4: 555. 1906.

Family: Poaceae

Notes: This widely cultivated ornamental is also known under the name *Pennisetum × advena*, crimson fountain grass. The combination is needed as the genus *Pennisetum* is now considered part of *Cenchrus* (Mabberley, 2017).

Dalea carthagenensis var. *microphylla* (Kunth) Govaerts, **comb. et stat. nov.**

(urn:lsid:ipni.org:names: 77192147-1)

Basionym: *Dalea microphylla* Kunth, Nov. Gen. Sp. 6: 482. 1823.

Family: Fabaceae

Notes: This is the correct name for *D. carthagenensis* var. *brevis* (J.F.Macbr.) Barneby, as the autonym, *D. microphylla* Kunth var. *microphylla* has priority over *D. microphylla* var. *brevis* (J.F.Macbr.) J.F.Macbr.

Kadua munroi (Fosberg) Govaerts, **comb. et stat. nov.**

(urn:lsid:ipni.org:names: 77192148-1)

Basionym: *Gouldia st-johnii* var. *munroi* Fosberg, Bull. Bernice P. Bishop Mus. 147: 63. 1937.

Family: Rubiaceae

Notes: This is the correct earliest name for the taxon recently named *Kadua fosbergii* (W.L.Wagner & D.R.Herbst) W.L.Wagner & Lorence, as the name *Gouldia munroi* (Fosberg) O.Deg. & I.Deg. (1967) has priority at the species level.

Replacement names for illegitimate names in current use

The following new combinations and replacement names are needed because the names in current use are illegitimate and the species are not well known or widespread enough to merit a conservation proposal.

Actinodaphne perakensis Govaerts, **nom. nov.**

(urn:lsid:ipni.org:names: 77192149-1)

Replaced name: *Actinodaphne cuspidata* Gamble, Bull. Misc. Inform. Kew 1910: 314. 1910.

Family: Lauraceae

Notes: *A. cuspidata* Gamble is a tree designated in the IUCN Red List as critically endangered. A replacement name is needed, as the name *A. cuspidata* P.A.Friedrich already existed for a fossil species, rendering *A. cuspidata* Gamble illegitimate. Named for the State of Perak, to which the species is endemic.

Asperula gobica Govaerts, **nom. nov.**

(urn:lsid:ipni.org:names: 77192150-1)

Replaced name: *Asperula saxicola* Grubov, Opred. Sosud. Rast. Mongolii: 230. 1982.

Family: Rubiaceae

Notes: A replacement name is needed for the illegitimate *A. saxicola* Grubov, non. Ehrend., which was accepted in Grubov (2008).

Cinnamomum maximum Govaerts, **nom. nov.**

(urn:lsid:ipni.org:names: 77192151-1)

Replaced name: *Cinnamomum grandifolium* Cammerl., Bull. Jard. Bot. Buitenzorg, sér. 3, 7: 477. 1925.

Family: Lauraceae

Notes: A replacement name is needed for *C. grandifolium* Cammerl., which was used by Soh (2011) in his revision, as the name is an illegitimate later homonym of the fossil name *C. grandifolium* (Ettingsh.) Schimp. Named for its large leaves.

Cyperus nyikanus Govaerts, **nom. nov.**

(urn:lsid:ipni.org:names: 77192152-1)

Replaced name: *Kyllinga oblonga* C.B.Clarke in D.Oliver *et al.* (eds.), Fl. Trop. Afr. 8: 284. 1901.

Family: Cyperaceae

Notes: A replacement name is needed as the name in current use (e.g., APD, 2018), *Cyperus oblongus* (C.B.Clarke) Kük. is a later homonym of the earlier fossil name *C. oblongus* A.Braun. The new epithet refers to the type locality, Nyika Plateau.

Diospyros heishi Govaerts, **nom. nov.**

(urn:lsid:ipni.org:names: 77192153-1)

Replaced name: *Diospyros nitida* Merr. Publ. Bur. Sci. Gov. Lab. 35: 57. 1905.

Family: Ebenaceae

Notes: A replacement name is needed, as *D. nitida* Merr. is a later homonym of the fossil-species name *D. nitida* J.W.Dawson. The name *D. nitida* is in current use, e.g., in *Flora of China* (Wu & Raven, 1996). The new epithet is derived from 'hei shi', the Pinyin name for this species.

Hedysarum erzurumianum Govaerts, **nom. nov.**

(urn:lsid:ipni.org:names: 77192154-1)

Replaced name: *Hedysarum elegans* Boiss. & A.Huet in P.E.Boissier, *Diagn. Pl. Orient.*, ser. 2, 2: 37. 1856.

Family: Fabaceae

Notes: A replacement name is needed as the name *H. elegans* Boiss. & A.Huet is a later homonym of *H. elegans* Lour. and in current use (Yakovlev & al., 1996). The new name is derived from the Turkish Province of Erzurum, which comprises most of the populations of this species.

Hedysarum dededaghensis Govaerts, **nom. nov.**

(urn:lsid:ipni.org:names: 77192155-1)

Replaced name: *Hedysarum laxum* Boiss., *Diagn. Pl. Orient.*, ser. 2, 6: 66. 1859.

Family: Fabaceae

Notes: A replacement name is needed, as the name *H. laxum* Boiss. is a later homonym of *H. laxum* (DC.) Spreng. and in current use (Greuter & al., 1989). The new name is derived from the name of the mountain Dede Dag to which it seems to be endemic.

Hedysarum malatyanum Govaerts, **nom. nov.**

(urn:lsid:ipni.org:names: 77192156-1)

Replaced name: *Hedysarum rotundifolium* Boiss. & Noë in Boissier, *Diagn. Pl. Orient.*, ser. 2, 2: 37. 1856.

Family: Fabaceae

Notes: A replacement name is needed as the name *H. rotundifolium* Boiss. & Noë is a later homonym of *H. rotundifolium* Vahl. and in current use (Greuter & al., 1989). The new epithet refers to the Turkish Province of Malatya, to which it seems to be endemic.

Hedysarum minimum Govaerts, **nom. nov.**

(urn:lsid:ipni.org:names: 77192157-1)

Replaced name: *Hedysarum parviflorum* Bajtenov, Vestn. Akad. Nauk Kazakhsk. S.S.R. 3: 106. 1956.

Family: Fabaceae

Notes: A replacement name is needed, as the name *H. parviflorum* Bajtenov is a later homonym of *H. parviflorum* (DC.) Spreng. and in current use (Yakovlev *et al.*, 1996). The replacement name maintains the reference to the plant's small flowers.

Indigofera priorii Govaerts, **nom. nov.**

(urn:lsid:ipni.org:names: 77192158-1)

Replaced name: *Indigofera depressa* Harv., Fl. Cap. 2: 175. 1862.

Family: Fabaceae

Notes: A replacement name is needed for this name in current use (Germishuizen, 2006), as it is a later homonym of *I. depressa* Thunb. Named for Dr Alexander Prior, who collected one of the syntypes.

Indigofera edwardi Govaerts, **nom. nov.**

(urn:lsid:ipni.org:names: 77192159-1)

Replaced name: *Indigofera discolor* Rydb. in N.L.Britton *et al.* (eds.), N. Amer. Fl. 24: 147. 1923.

Family: Fabaceae

Notes: A replacement name is needed for this name in current use (Villaseñor Ríos, 2016), as it is a later homonym of *I. discolor* E.Mey. Named for Edward Palmer who collected the type specimen.

Ixora pueuana Govaerts, **nom. nov.**

(urn:lsid:ipni.org:names: 77192160-1)

Replaced name: *Ixora umbellata* J.W.Moore, Occas. Pap. Bernice Pauahi Bishop Mus. 16: 20. 1940.

Family: Rubiaceae

Notes: A replacement name is needed for this later homonym of *I. umbellata* Valetton. The plant was named for the Pueu Valley, Tahiti, where the type was discovered.

Ixora richardi-longii Govaerts, **nom. nov.**

(urn:lsid:ipni.org:names: 77192161-1)

Replaced name: *Ixora decora* A.C.Sm., J. Arnold Arbor. 34: 100. 1953.

Family: Rubiaceae

Notes: A replacement name is needed for *I. decora* A.C.Sm., which is in current use (Smith, 1988), as it is a later homonym of *I. × decora* Van Geert. The epithet honours Richard Long, who visited Fiji with the author.

Ixora vandersticheleorum Govaerts, **nom. nov.**

(urn:lsid:ipni.org:names: 77192162-1)

Replaced name: *Ixora venusta* Bremek., Bull. Jard. Bot. Buitenzorg, sér. 3, 14: 267. 1937.

Family: Rubiaceae

Notes: A replacement name is needed for this species, which is widely cultivated in tropical gardens, as it is a later homonym of *I. venusta* Van Geert. Named in remembrance of Martine Vander Stichele and her father Paul, who created a large arboretum in Belgium.

Ixora vinniei Govaerts, **nom. nov.**

(urn:lsid:ipni.org:names: 77192163-1)

Replaced name: *Ixora tenuifolia* Bremek., Indian Forester 85: 374. 1959.

Family: Rubiaceae

Notes: A replacement name is needed for *I. tenuifolia* Bremek., which is in current use (Pandey *et al.*, 2008), as it is a later homonym of *I. tenuifolia* Wood. The plant was named for Vinnie Widdows.

Oldenlandia neomicrophylla Govaerts, **nom. nov.**

(urn:lsid:ipni.org:names: 77192164-1)

Replaced name: *Houstonia microphylla* Willd. in J.J.Roemer and J.A.Schultes, Syst. Veg., ed. 15 bis 3: 527. 1818.

Family: Rubiaceae

Notes: The recently published combination *Oldenlandia microphylla* (Willd.) P.Mena is a later homonym of *O. microphylla* De Wild. & T.Durand, so a replacement name is needed, once this species is recognised in the genus *Oldenlandia* L.

Ruellia boliviana Govaerts, **nom. nov.**

(urn:lsid:ipni.org:names: 77192165-1)

Replaced name: *Ruellia pearcei* Rusby, Bull. New York Bot. Gard. 4: 429. 1907.

Family: Acanthaceae

Notes: A replacement name is needed for this later homonym of *R. pearcei* (Hook.f.) N.E.Br. Named for Bolivia, where this species is endemic.

Spermacoce pohliana Govaerts, **nom. nov.**

(urn:lsid:ipni.org:names: 77192166-1)

Replaced synonym: *Borreria pumila* DC., Prodr. 4: 543. 1830.

Family: Rubiaceae

Notes: A new name is needed for *Spermacoce pumila* (DC.) Pohl ex B.D.Jacks., a later homonym of *S. pumila* (Span.) Boerl. The epithet honours Johann Pohl, who collected the type specimen.

Valid publication of names in current use that were never validly published

The following names are in current use but have never been validly published. They are often in use in online databases and in horticulture. The names are here validly published.

Garcinia virgata (Vieill. ex Guillaumin) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192167-1)

Basionym: *Clusia virgata* Vieill. ex Guillaumin. Bull. Mus. Natl. Hist. Nat., Sér. 2, 14: 149. 1942.

Family: Clusiaceae

Notes: Even though this name is being used as in Merza (2006), the combination appears to have never been validly published.

Huperzia societensis (J.W.Moore) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192250-1)

Basionym: *Lycopodium societense* J.W.Moore, Bull. Bernice P.Bishop Mus. 102: 12 (1933).

Family: Lycopodiaceae

Notes: This species name is used informally in some online resources and was previously put into the genus *Phlegmariurus* which is considered part of *Huperzia*, following POW.

Larsenaikia suffruticosa (R.Br. ex Benth.) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192168-1)

Basionym: *Gardenia suffruticosa* R.Br. ex Benth., Fl. Austral. 3: 410. 1867)

Family: Rubiaceae

Notes: This genus was supported in recent phylogenies (Mouly, 2014). Even though more than a thousand specimens are cited under this name in the Atlas of Living Australia, it was never validly published by Tirvengadam (1993).

Thirty of the new infraspecific taxa published by Pillans in his 1942 revision of the genus *Phylica* L. (Rhamnaceae) are in common use (Germishuizen, 2003), even though none were validly published and no Latin descriptions were provided. Since English descriptions are now acceptable (ICN, Art. 39.2.), I validly publish all those names below providing reference to their English description and type indication. In cases when the type indication is missing or incomplete, additional data are given.

Phylica aemula var. *multibracteolata* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192169-1)

Reference to description and type: J. S. African Bot. 8: 155. 1942.

Phylica axillaris var. *cooperi* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192170-1)

Reference to description and type: J. S. African Bot. 8: 37. 1942.

Phylica axillaris var. *densifolia* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192171-1)

Reference to description and type: J. S. African Bot. 8: 38. 1942.

Phylica axillaris var. *gracilis* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192172-1)

Reference to description and type: J. S. African Bot. 8: 37. 1942.

Additional validating data: the type is preserved at **K**.

Phylica axillaris var. *maritima* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192173-1)

Reference to description and type: J. S. African Bot. 8: 38. 1942.

Additional validating data: the type is preserved at **PRE**.

Phylica axillaris var. *pulchra* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192174-1)

Reference to description and type: J. S. African Bot. 8: 38. 1942

Additional validating data: the type is preserved at **BOL**.

Phylica constricta var. *staavioides* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192175-1)

Reference to description and type: J. S. African Bot. 8: 117. 1942.

Phylica cuspidata var. *minor* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192176-1)

Reference to description and type: J. S. African Bot. 8: 121. 1942.

Additional validating data: the type is preserved at **BOL**.

Phylica debilis var. *fourcadei* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192177-1)

Reference to description and type: J. S. African Bot. 8: 130. 1942.

Additional validating data: Type: South Africa, mountain slopes at Witte Els Bosch. *Fourcade, H.G., 793* (holotype, **BOL!**).

Phylica diffusa var. *burchellii* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192178-1)

Reference to description and type: J. S. African Bot. 8: 99. 1942.

Phylica disticha var. *cuneata* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192179-1)

Reference to description and type: J. S. African Bot. 8: 100. 1942.

Additional validating data: Type: South Africa, Shaw's Mountain, *Stoeke 6487* (holotype, **BOL!**).

Phylica ericoides var. *montana* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192180-1)

Reference to description and type: J. S. African Bot. 8: 87. 1942.

Phylica ericoides var. *muirii* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192181-1)

Reference to description and type: J. S. African Bot. 8: 87. 1942.

Phylica ericoides var. *pauciflora* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192182-1)

Reference to description and type: J. S. African Bot. 8: 87. 1942.

Phylica ericoides var. *zeyheri* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192183-1)

Reference to description and type: J. S. African Bot. 8: 87. 1942.

Phylica keetii var. *mollis* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192184-1)

Reference to description and type: J. S. African Bot. 8: 131. 1942.

Phylica marlothii var. *crassa* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192185-1)

Reference to description and type: J. S. African Bot. 8: 152. 1942.

Phylica marlothii var. *levynsiae* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192186-1)

Reference to description and type: J. S. African Bot. 8: 151. 1942.

Additional validating data: Type: South Africa, lower north slopes of the Matroosberg, *Levyns 991* (holotype, **BOL!**).

Phylica pubescens var. *orientalis* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192187-1)

Reference to description and type: J. S. African Bot. 8: 136. 1942.

Additional validating data: The type is preserved at **P**.

Phylica purpurea var. *floccosa* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192188-1)

Reference to description and type: J. S. African Bot. 8: 41. 1942.

Phylica purpurea var. *pearsonii* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192189-1)

Reference to description and type: J. S. African Bot. 8: 41. 1942.

Phylica spicata var. *piquetbergensis* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192190-1)

Reference to description and type: J. S. African Bot. 8: 139. 1942.

Additional validating data: Type: [South Africa], bottom of Bokloof, west side of Kapiteins Kloof, *Pillans 8006* (holotype, **BOL!**).

Phylica stenopetala var. *sieberi* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192191-1)

Reference to description and type: J. S. African Bot. 8: 102. 1942.

Additional validating data: Type: South Africa, without precise locality, *Sieber 68* (holotype, **K!**).

Phylica strigosa var. *australia* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192192-1)

Reference to description and type: J. S. African Bot. 8: 77. 1942.

Phylica strigosa var. *dregei* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192193-1)

Reference to description and type: J. S. African Bot. 8: 77. 1942.

Additional validating data: Type: South Africa, Hex River Mountains, *Drège 245* (holotype, **K!**).

Phylica strigosa var. *elongata* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192194-1)

Reference to description and type: J. S. African Bot. 8: 78. 1942.

Additional validating data: type preserved at **BOL**.

Phylica strigosa var. *macowanii* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192195-1)

Reference to description and type: J. S. African Bot. 8: 78. 1942.

Additional validating data: type preserved at **BOL**.

Phylica tysonii var. *brevifolia* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192196-1)

Reference to description and type: J. S. African Bot. 8: 108. 1942.

Phylica vulgaris var. *burchellii* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192197-1)

Reference to description and type: J. S. African Bot. 8: 106. 1942.

Additional validating data: Type: South Africa, Witsenberg, *Burchell* 8728 (holotype, **K!**).

Phylica vulgaris var. *major* Pillans, **var. nov.**

(urn:lsid:ipni.org:names: 77192198-1)

Reference to description and type: J. S. African Bot. 8: 106. 1942.

Orphan names

The following new combinations are needed for species concepts that are currently accepted but for which no name is available in the correct genus. Often when genera are re-circumscribed authors make the necessary combination but overlook the transfer of all pertaining species and subspecies, which then remain in limbo, as no correct names are available for them. The names are listed as unplaced in POWO, which is very unsatisfactory and elicits multiple requests from users to have appropriate combinations made available.

Afrocanthium burttii subsp. *glabrum* (Bridson) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192199-1)

Basionym: *Canthium burttii* subsp. *glabrum* Bridson, Fl. Trop. E. Afr., Rubiac. (3): 876. 1991.

Family: Rubiaceae

Notes: This subspecific name has not previously been transferred to *Afrocanthium* (Bridson) Lantz & B.Bremer, where the species is now placed (Lantz & Bremer, 2004).

Alchemilla uniflora (Maguire) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192200-1)

Basionym: *Lachemilla uniflora* Maguire, *Phytologia* 9: 345. 1964.

Family: Rosaceae

Notes: *Alchemilla* L. is circumscribed in a broad monophyletic sense in POWO, following Mabberley (2017).

Cleome chiriquensis (Standl.) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192201-1)

Basionym: *Gynandropsis chiriquensis* Standl., *J. Wash. Acad. Sci.* 17: 252. 1927

Family: Cleomaceae

Notes: This new combination in *Cleome* L. is needed, as a broad concept of the genus *Cleome* is accepted in POWO, following POW and Mabberley (2017).

Cleome coccinea (Benth.) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192202-1)

Basionym: *Gynandropsis coccinea* Benth., *Pl. Hartw.*: 160. 1845.

Family: Cleomaceae

Notes: POWO follows POW and Mabberley (2017) in including *Podandroyne* into the genus *Cleome*. Although most of the names are available, this one was never transferred. This species has been known under the name *Podandroyne coccinea* (Benth.) Woodson.

Cleome hispidula (DC.) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192203-1)

Basionym: *Gynandropsis hispidula* DC., *Prodr.* 1: 238. 1824.

Family: Cleomaceae

Notes: POWO follows POW and Mabberley (2017) in including *Podandroyne* into the genus *Cleome*. Although most of the names are available, this one was never transferred. This species has been known under the name *Podandroyne brachycarpa* (DC.) Woodson, non *Cleome brachycarpa* Vahl ex DC.

Cleome jamesii (Torr. & A.Gray) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192204-1)

Basionym: *Cristatella jamesii* Torr. & A.Gray, *Fl. N. Amer.* 1(1): 124. 1838.

Family: Cleomaceae

Notes: POWO follows POW and Mabberley (2017) in including *Podandroyne* into the genus *Cleome*. Although most of the names are available, this one was never transferred. This species has been known under the name *Polanisia jamesii* (Torr. & A.Gray) Iltis.

Cyperus costatus subsp. *jubensis* (Mtot.) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192205-1)

Replaced name: *Kyllinga flava* subsp. *jubensis* Mtot., Sinet 13: 39. 1990.

Family: Cyperaceae

Notes: A new combination is needed in the genus *Cyperus* for this taxon previously known under the name *Kyllinga nervosa* subsp. *jubensis* (Mtot.) J.-P.Lebrun & Stork. The species *K. nervosa* Steud. is now a synonym of *C. costatus* Mattf. & Kük., as the epithet “nervosus” was not available in the genus *Cyperus*. The other subspecies had already been transferred as *C. costatus* subsp. *sidamoensis* (Mtot.) Lye.

Cyperus scott-elliottii Govaerts, **nom. nov.**

(urn:lsid:ipni.org:names: 77192206-1)

Replaced name: *Kyllinga flava* C.B.Clarke in D.Oliver & al. (eds.), Fl. Trop. Afr. 8: 281. 1901.

Family: Cyperaceae

Notes: Although this taxon has been recognised at subspecific level as *Cyperus oblongus* subsp. *flavus* (C.B.Clarke) Lye, the most recent taxonomy by Hoenselaar (2010) recognises it at the species level. No correct name is currently available at any level in the genus *Cyperus*. A replacement name is needed, as the epithet “flavus” is no longer available in the genus *Cyperus*. The new name honours Scott Elliot, the collector of the type.

Echeandia eccremorrhiza (Ruiz & Pav.) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192207-1)

Basionym: *Anthericum eccremorrhizum* Ruiz & Pav., Fl. Peruv. 3: 67. 1802.

Family: Asparagaceae

Notes: The genus *Anthericum* L. is restricted to seven Old World species, The New World species are largely part of *Echeandia* Ortega. The transfer of this widespread species was seemingly overlooked by Cruden (2009) and is therefore made here. There are now 10 species in South America rather than 8, as was previously reported by Cruden (2009).

Fernandezia herzogii (Schltr.) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192208-1)

Basionym: *Pachyphyllum herzogii* Schltr., Meded. Rijks-Herb. 29: 80. 1916.

Family: Orchidaceae

Notes: This Bolivian species seems to have been overlooked when *Pachyphyllum* Kunth was sunk into *Fernandezia* Ruiz & Pav. by Chase & Whitten (2011).

Garcinia martini (Maguire) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192209-1)

Basionym: *Rheedia martini* Maguire, Bull. Torrey Bot. Club 75: 437. 1948.

Family: Clusiaceae

Notes: POWO follows POW and Mabberley (2017) in regarding *Rheedia* L. as part of *Garcinia* L. No name is yet available in the genus *Garcinia* for this taxon.

Heliotropium acuminatum (DC.) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192210-1)

Basionym: *Tournefortia acuminata* DC., Prodr. 9: 520. 1845.

Family: Boraginaceae

Notes: The genus *Tournefortia* L. is now considered part of *Heliotropium* L. (Mabberley, 2017). Some of the necessary combinations needed for POWO for a number of the most widespread and significant species are made here.

Heliotropium andrade-limae (J.I.M.Melo) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192211-1)

Basionym: *Tournefortia andrade-limae* J.I.M.Melo, Hoehnea 34: 156. 2007.

Family: Boraginaceae

Notes: See above under *Heliotropium acuminatum*.

Heliotropium angustiflorum (Ruiz & Pav.) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192212-1)

Basionym: *Tournefortia angustiflora* Ruiz & Pav., Fl. Peruv. 2: 25. 1799.

Family: Boraginaceae

Notes: See above under *Heliotropium acuminatum*.

Heliotropium astrotrichum (DC.) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192213-1)

Basionym: *Tournefortia astrotricha* DC., Prodr. 9: 520. 1845.

Family: Boraginaceae

Notes: See above under *Heliotropium acuminatum*.

Heliotropium astrotrichum var. *subglabrum* (Stearn) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192214-1)

Basionym: *Tournefortia astrotricha* var. *subglabra* Stearn, J. Arnold Arbor. 52: 633. 1971.

Family: Boraginaceae

Notes: See above under *Heliotropium acuminatum*.

Heliotropium auro-argenteum (Killip) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192215-1)

Basionym: *Tournefortia auro-argentea* Killip, J. Wash. Acad. Sci. 17: 333. 1927.

Family: Boraginaceae

Notes: See above under *Heliotropium acuminatum*.

Heliotropium petiolare (DC.) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192216-1)

Basionym: *Tournefortia petiolaris* DC., Prodr. 9: 520. 1845.

Family: Boraginaceae

Notes: See above under *Heliotropium acuminatum*. This is the earliest available name for the taxon generally known as *Tournefortia acutiflora* M.Martens & Galeotti (Villaseñor, 2016) in the genus *Heliotropium*.

Heliotropium rusbyi Govaerts, **nom. nov.**

(urn:lsid:ipni.org:names: 77192217-1)

Replaced name: *Tournefortia andina* Britton, Bull. Torrey Bot. Club 26: 148. 1899.

Family: Boraginaceae

Notes: A replacement name is needed when this species is transferred to *Heliotropium*, as the name *Heliotropium andinum* Rusby already exists. It is named for the collector of the type, H.H.Rusby.

Heliotropium velutinum (Sm.) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192218-1)

Basionym: *Tournefortia velutina* Sm. in A.Rees, Cycl. 36: N° 3. 1817.

Family: Boraginaceae

Notes: See above under *Heliotropium acuminatum*. This is the earliest available name for the taxon generally known as *Tournefortia arborescens* Lam. (Autrey *et al.*, 2005) in the genus *Heliotropium*.

Mussaenda lobbii (Ridl.) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192219-1)

Basionym: *Asemanthia lobbii* Ridl., Bull. Misc. Inform. Kew 1939: 600. 1940.

Family: Rubiaceae

Notes: All species of *Asemanthia* Ridl. have been transferred to *Mussaenda* Burm. ex L. over the years except this one from Sarawak. It is related to *Mussaenda maingayi* (Hook.f.) Hemsl. ex B.D.Jacks. from Peninsular Malaysia.

Mussaenda sabahensis Govaerts, **nom. nov.**

(urn:lsid:ipni.org:names: 77192220-1)

Replaced name: *Mussaenda coccinea* Stapf, Trans. Linn. Soc. London, Bot. 4: 170. 1894.

Family: Rubiaceae

Notes: This species was previously included in *Asemanthia* as *A. coccinea* Ridl. (Beaman, 2004). No legitimate name for the taxon is currently available in *Mussaenda*, as *M. coccinea* Stapf is a later homonym of *M. coccinea* (Vahl) Poir. It is named for the state of Sabah in Northern Borneo.

Oldenlandia butensis (Masam.) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192221-1)

Basionym: *Hedyotis butensis* Masam., Trans. Nat. Hist. Soc. Formosa 28: 119. 1938.

Family: Rubiaceae

Notes: This species was previously included in *Hedyotis* sensu lato. It is, however, related to *Oldenlandia umbellata* L., which belongs to *Oldenlandia* s.s. (Wikström *et al.*, 2013).

Glochidion J.R.Forst. & G.Forst. (Phyllanthaceae) has long been considered part of *Phyllanthus* L. (Hoffmann *et al.*, 2006) and although many taxa have already been transferred, mostly regionally (Lorence *et al.*, 2011), a large number still need names in *Phyllanthus*. Ten taxa, those in use in POWO, are transferred to *Phyllanthus* here below.

Phyllanthus acustylus (Airy Shaw) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192222-1)

Basionym: *Glochidion acustylum* Airy Shaw, Kew Bull. 34: 591. 1980.

Phyllanthus alstonii (Airy Shaw) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192223-1)

Basionym: *Glochidion alstonii* Airy Shaw, Kew Bull. 36: 600. 1981.

Phyllanthus alticola (Airy Shaw) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192224-1)

Basionym: *Glochidion alticola* Airy Shaw, Kew Bull. 27: 8. 1972.

Phyllanthus aluminescens (Airy Shaw) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192225-1)

Basionym: *Glochidion aluminescens* Airy Shaw, Kew Bull. 27: 16. 1972.

Phyllanthus ambiguus (Airy Shaw) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192226-1)

Basionym: *Glochidion ambiguum* Airy Shaw, Kew Bull. 27: 62. 1972.

Phyllanthus apodogynus (Airy Shaw) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192227-1)

Basionym: *Glochidion apodogynum* Airy Shaw, Kew Bull. 27: 44. 1972.

Phyllanthus gimi (K.Schum.) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192228-1)

Basionym: *Tetraglochidion gimi* K.Schum. in K.M.Schumann & C.A.G.Lauterbach, Fl. Schutzgeb. Südsee, Nachtr.: 291. 1905.

Phyllanthus lalongatanus Govaerts, **nom. nov.**

(urn:lsid:ipni.org:names: 77192229-1)

Replaced name: *Glochidion acuminatissimum* Airy Shaw, Kew Bull. 27: 55. 1972.

Notes: A new name is needed, as *Phyllanthus acuminatissimus* C.B.Rob. already exists. Named for plant's lalongate pollen.

Phyllanthus malesianus Govaerts, **nom. nov.**

(urn:lsid:ipni.org:names: 77192230-1)

Replaced name: *Glochidion angulatum* C.B.Rob., Philipp. J. Sci., C 4: 91. 1909.

Notes: A new name is needed as *Phyllanthus angulatus* Schumach. & Thonn. already exists. Named for Malesia where the species is widespread.

Phyllanthus sarawakensis Govaerts, **nom. nov.**

(urn:lsid:ipni.org:names: 77192231-1)

Replaced name: *Glochidion andersonii* Airy Shaw, Kew Bull. 29: 287. 1974.

Notes: A new name is needed, as *Phyllanthus andersonii* Müll.Arg. already exists. Named for the State of Sarawak, where the species is endemic.

Prunus bifrons var. *pedicellata* (Browicz) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192232-1)

Basionym: *Cerasus bifrons* var. *pedicellata* Browicz, Fl. Iranica 66: 193. 1969.

Family: Rosaceae

Notes: *Prunus* s.l., including *Cerasus* L., is monophyletic (Bortiri, 2001) and maintained in this wider sense in POWO; therefore, previously accepted names in *Cerasus* need to be transferred to *Prunus*.

Spermacoce cerradoana (E.L.Cabral, R.M.Salas & J.D.Soto) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192233-1)

Basionym: *Borreria cerradoana* E.L.Cabral, R.M.Salas & J.D.Soto, Brittonia 64: 399. 2012.

Family: Rosaceae

Notes: The following transfers are needed, as the genus *Borreria* G.Mey. is considered part of *Spermacoce* L. (Mabberly, 2017).

Spermacoce johnwoodii (E.L.Cabral & R.M.Salas) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192234-1)

Basionym: *Borreria johnwoodii* E.L.Cabral & R.M.Salas, *Brittonia* 63: 287. 2011.

Family: Rosaceae

Spermacoce siberiana (E.L.Cabral & R.M.Salas) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192235-1)

Basionym: *Borreria siberiana* E.L.Cabral & R.M.Salas, *Brittonia* 63: 289. 2011.

Family: Rosaceae

Spermacoce velascoana (E.L.Cabral, R.M.Salas & J.D.Soto) Govaerts, **comb. nov.**

(urn:lsid:ipni.org:names: 77192236-1)

Basionym: *Borreria velascoana* E.L.Cabral, R.M.Salas & J.D.Soto, *Brittonia* 64: 409. 2012.

Family: Rosaceae

Sulla aculeolata subsp. *mauritanica* (Pomel) Govaerts, **comb. et stat. nov.**

(urn:lsid:ipni.org:names: 77192237-1)

Basionym: *Hedysarum mauritanicum* Pomel, *Nouv. Mat. Fl. Atl.* 1: 196. 1874.

Family: Fabaceae

Notes: This subspecies from northwestern Africa formerly treated as *Hedysarum aculeolatum* subsp. *mauritanicum* (Pomel) Maire needs to be transferred to *Sulla* Medik., as only the species names were transferred by Amirahmadi *et al.* (2014).

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WCSP: <http://wesp.science.kew.org/>

WFO: <http://www.worldfloraonline.org/>