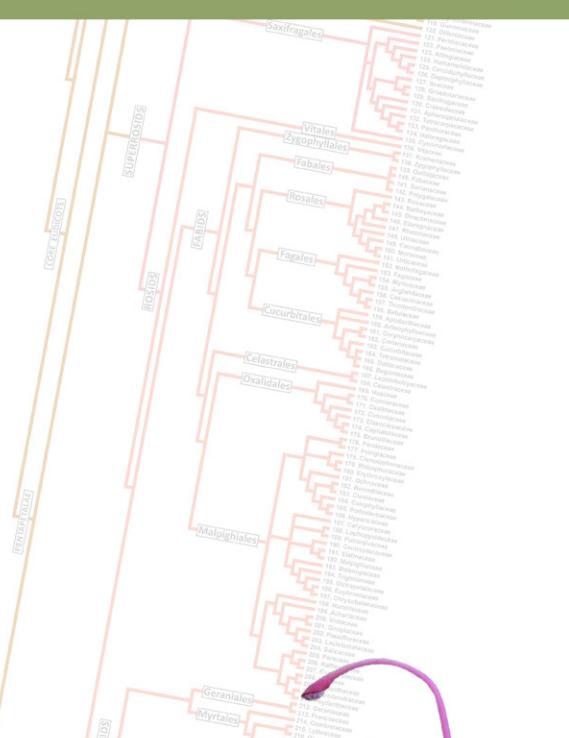
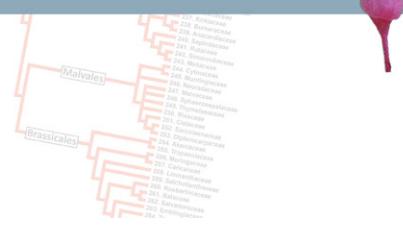


# PLANT GATEWAY'S The Global Flora

A practical flora to vascular plant species of the world

SPECIAL EDITION  
GLOVAP Nomenclature Part 1





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# THE GLOBAL FLORA

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## **The Global Flora**

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## Abstract

A Global List of Vascular Plants (GLOVAP) has been compiled after consulting a large number of published phylogenetic studies and taxonomic literature. We update the classifications for a number of vascular plant families and genera, by expanding or splitting, to provide monophyletic and morphologically well-defined groups. The first nomenclatural changes needed to do this are presented here. We provide two new genera, four new species, 415 new names and 3286 new combinations. GLOVAP vs. 1 will adopt these new changes and hence make this one of the largest taxonomic undertakings in botany of recent times.

## Keywords

Classification – Genera – GLOVAP – Vascular plants

## Background

Generic-level classifications of many vascular plant families are still poorly known and the classification is often not revised as new evidence comes to light. This is particularly true of online databases (e.g. IPNI, Jstor, Tropicos, The Plant List, Catalogue of Life, GBIF) that are usually consulted to provide a global classification for cosmopolitan families and to identify the genus and family in which a species now should be placed. Each of these online resources comes with its own idiosyncrasies and errors, often resulting in incompatibility and conflicting results. Rather than being complementary, the information in these databases is often contradictory, and for the user of taxonomy it can be a daunting task to know what genus to choose. This is potentially leading to an error-strewn global taxonomy that is confusing and difficult to apply for users. A classification only has purpose if it is practical and useable, whilst still reflecting evolutionary patterns. Admittedly the existence of these databases is essential in helping taxonomists and systematists find the relevant literature, references and associated specimens, but as the sources and data are of varied quality and the sources are often not explicitly stated, it is impossible for the general user to know which database to use.

We have compiled an accepted and synonymised linear sequence of all vascular plant genera called the Global List of Vascular Plants (GLOVAP), which will be published soon in *The Global Flora* (Byng & Christenhusz, in prep.) After consulting hundreds of phylogenetic studies and herbarium specimens, we update the classification of many genera that have been shown to be polyphyletic and hence need to be either expanded or split depending on the history of the group in order to create the greatest nomenclatural stability for the foreseeable future. In this volume we make some of the nomenclatural changes required and we have aimed to provide complete generic transfers whenever possible. Inevitably we will have omitted some combinations, but this is not intentional. It is also possible that new combinations already existed but were not included in

any of the standard databases cited above and hence we may have overlooked these. We apologise for these discrepancies and unintentional superfluous names, and we shall correct errors in future updates. We aim for longer term stability and it is therefore inevitable that some new names had to be coined for familiar plants that were nomenclaturally problematic when placed in a proper evolutionary framework. Thus, some familiar names will disappear due to these nomenclatural corrections. It is like changing your surname when you have established who your parents are; people get used to new names in the long run, particularly when they are unlikely to change again.

We cite references for each family that support these changes and most changes are self-explanatory and we provide a short note for each case if appropriate. It generally results into an avoidance of naming each clade in a grade as a separate genus, but taking historical usage into account and assuring that the future nomenclature will remain as stable as possible based on the currently available data. Nevertheless, we highlight a few cases below in which well-established genera have disappeared. We know that these changes are not always positively welcomed, and therefore we explain our motivation in the following seven cases.

**Ferns** – The classification of ferns has been contentious in recent times as there is a basic discrepancy between the generalist view and the specialist view. The first, supported by the classification by Christenhusz & Chase (2014), opts for a broader concept of genera, in line with historical treatments of genera and avoiding taxonomic uncertainty. This classification absorbs sister lineages into broader genera, avoiding intergeneric hybrids as much as possible and focuses on the similarities rather than differences. The latter, more finely split classification was published by the PPG (2016), a consortium of fern specialists. Even though this was presented as a community effort in line with APG IV (2016), the APG method was not employed, and it resulted in the opposite, a highly divided classification with numerous genera that are difficult to identify. This results in

genera that can only be established on molecular results after the species has been identified, and thus the rank of genus serves little purpose. We have thus followed the classification of Christenhusz & Chase (2014) and provide combinations for species to comply to the traditional broad concepts of *Athyrium* Roth., *Blechnum* L., *Grammitis* Sw., *Selliguea* Bory, *Thelypteris* Adans. and *Trichomanes* L. The case of *Hemionitis* L. is somewhat more contentious. Recent molecular results on Pteridaceae subfamily Cheilanthoideae (Eiserhard *et al.* 2011) have shown that formerly well-established genera like *Cheilanthes* Sw., *Doryopteris* J.Sm. and *Pellaea* Link, among others, are polyphyletic. There has been a suggestion to split all three genera, resulting in at least 15 poorly circumscribed genera, several only recently described or elevated from synonymy. The result is that few botanists can recognise the genera in the field. Instead, we suggest that the entire subfamily should be merged into a single genus, as all the taxa are recently evolved and hybrids across the clade are known. As *Hemionitis* has nomenclatural priority, this name is used here.

**Asparagaceae** – As currently circumscribed *Dracaena* L. (Asparagaceae) is a paraphyletic genus with *Sansevieria* Thunb. and part of *Pleomele* Salisb. embedded in it (Rudall *et al.*, 2000; Lu & Morden, 2014). Several authors have placed *Sansevieria* in synonymy with *Dracaena* based on the recent molecular evidence and their similar morphology (e.g. Bos, 1998; Mabberley, 2017), but the new combinations required for most of them have still not been made, leading to increasing confusion among users. Species of both *Dracaena* and *Sansevieria* are popular ornamentals, outdoors in tropical areas and indoors in the temperate zones, which could make any potential nomenclatural changes unpopular in horticulture. In contrast, *Pleomele* species are not of horticultural importance and new combinations have already been made (Jankalski, 2008; Mabberley, 2017). In addition a new genus was proposed, *Chrysodracon* (Jankalski) P.L.Lu & Morden for a Hawaiian clade of *Dracaena*, but there has been limited uptake of the latter change (e.g. WCSP, 2018). Traditional classifications have favoured two distinct genera based on gross morphology, primarily degree of succulence and fruit morphology. However, great morphological variation already exists in both genera, and there is significant morphological overlap. Notably, there are similarities in underground organs, stems, inflorescences, flowers, ecology and distribution (Bos, 1998). Recent molecular results by Lu & Morden (2014) show that *Dracaena* forms a grade to an apparently monophyletic *Sansevieria*. In order to retain a distinct *Sansevieria*, *Dracaena* would need to be divided into nearly 20 genera causing a high level of nomenclatural disruption and confusion.

**Proteaceae** – An extensive molecular study of

Proteaceae subtribe Hakeinae (Mast *et al.*, 2015) has shown that the large genus *Grevillea* R.Br. forms a grade leading to a monophyletic *Hakea* Schrad. & J.C.Wendl., with *Finschia* Warb. also embedded in *Grevillea*. *Grevillea* is a well-established name, but lacks an unambiguous synapomorphy in support of its monophyly. Nomenclatural changes have not been made, and even though we recognise that it will take time before a new name for such a common and popular horticultural genus like *Grevillea* will be adopted, we think it necessary to at least make the names available for use.

**Rosaceae** – Relationships between the genera in subtribe Malinae are problematic, notably because *Sorbus* L. *sensu lato* is polyphyletic. Phylogenetic analyses have generally not provided clear resolution between the genera in this clade and there are many natural and synthetic intergeneric hybrids, especially if the lineages of *Sorbus* L. *sensu lato* are considered as separate genera. *Sorbus intermedia* (Ehrh.) Pers., for example, is a stabilised hybridogenic species, with *S. aucuparia* L., *S. aria* (L.) Crantz (=*Aria nivea* Host.) and *S. torminalis* (L.) Crantz (=*Torminalis clusii* (Roemer) K.R.Robertson & J.B.Phipps) in its background. Thus, if the segregates of *Sorbus* *sensu lato* were to be recognised, this taxon would need to be called *×Tormariosorbus intermedia* (Ehrh.) J.M.H.Shaw, with *×Tormariosorbus* Mezhenkskyi being the hybrid genus between *Sorbus* *sensu stricto* and *×Torminaria* (the hybrid genus between *Aria* and *Torminalis*). An alternative solution was proposed by Sennikov & Kurttó (2017), who recognised the segregates of *Sorbus* *sensu lato* as genera (in the interest of recognising monophyletic units), but treated the nothogenera as genera in their own right (e.g. *Borkhausenia* Sennikov & Kurttó = *×Sorbotorminaria*). This latter solution, in our opinion, further confuses the situation, ignoring the polyphyletic relationships of their parental taxa. Most recently, Zhang *et al.* (2017), based on analyses of complete plastid genomes, identified four major clades in Malinae, two of which (*Crataegus* L./*Mespilus* L./*Amelanchier* Medik./*Malacomeles* (Decne.) Decne./*Peraphyllum* Nutt. on the one hand and *Pyracantha* M.Roem. alone on the other) are clearly distinct from the remaining taxa. These are not discussed further here (although we note that *Mespilus* is embedded in *Crataegus* and the appropriate combinations exist).

For many of the remaining taxa of Malinae, combinations exist in two or more genera. For example, *Sorbus torminalis* has been treated as *Crataegus torminalis* L., *Pyrus torminalis* (L.) Ehrh. and *Torminalis clusii* (Roemer) K.R.Robertson & J.B.Phipps. However, the inclusion of two major fruit crops (apples and pears) and the existence of a large number of apomictic species, notably in *Cotoneaster* and *Sorbus*, in this group has led to people being reluctant to make the

taxonomic changes to reflect a monophyletic group, namely *Pyrus sensu lato*, the generic name with priority. In our opinion, the best solution is to recognise *Pyrus sensu lato* for the remaining taxa and we make the necessary combinations here.

**Penaeaceae** – Morphologically the genera of Penaeoideae are similar, but have traditionally been divided into seven genera based on the number of pollen apertures, number and orientation of ovules, stigma type and calyx aestivation (Dahlgren 1967a, b, c, 1968, 1971). However, molecular data do not support these generic delimitations as *Brachysiphon* A.Juss. and *Stylapterus* A.Juss. have both been shown to be non-monophyletic, and several of the resulting clades are not supported by traditional morphological characters. The lack of clear-cut boundaries between genera was noted by the authors (Rourke & McDonald, 1989; Rourke, 1995) of recently described species when attempting to assign them to a particular genus. We advocate expanding the circumscription of *Penaea* L. to all members of Penaeoideae.

**Cleomaceae** – Until recently, *Cleome* L. was considered a single large genus in keeping with floristic tradition. Since then the generic concept has narrowed and diverged adopting a large number of small genera that were long recognised as sections or series (Iltis 1952). This splitting of an otherwise monophyletic clade (Inda *et al.*, 2008; Patchell *et al.*, 2014) seems to be unnecessarily destabilising the classification of this clade and hence here we accept a broader concept of *Cleome*, keeping in mind the monophyly of the genus. Patchell *et al.* (2014) also suggested expanding *Cleomella* DC., resulting in the acceptance of four genera (*Cleome*, *Cleomella*, *Peritoma* DC. and *Rorida* J.F.Gmel.) in Cleomaceae.

**Capparaceae** – *Capparis* L. in its traditional concept is polyphyletic (Tamboli *et al.*, 2018) with the Old World clade being separated from the New World clade by a grade of genera. The Old World clade includes *Apophyllum* F.Muell. and the type of *Capparis* and is to be maintained as a single genus. New World *Capparis* has in the past been subdivided into a several genera, probably to preserve the rather divergent *Steriphoma* Spreng., but this has greatly destabilised the nomenclature of the American clade. The oldest name is *Morisonia* L. and we transfer the entire American clade to this genus.

We have done our utmost to be as precise and complete as possible and we hope this system will progress to a more stable vascular plant taxonomy in the near future. Families are numbered according to the list that will be provided in Byng & Christenhusz (in prep.). Ferns are marked with 'F', gymnosperms with 'G'.

## Taxonomic list

### F5. Ophioglossaceae

**Note:** The following taxon is best treated at the species level.

***Ophioglossum malgassicum* (C.Chr.) Christenh., comb. & stat. nov.** Basionym: *Cheiroglossa palmata* var. *malgassica* C.Chr., *Dansk Bot. Ark.* 7: 185. 1932.

**F7. Marattiaceae.** References: Murdock (2008), Senterre (2014).

**Note:** A few species were not yet transferred to *Ptisana* Murdock (2008). African *P. fraxinea* appears not to be a single species (Senterre *et al.*, 2014) and two of the known species that do not yet have a name are described below.

***Ptisana africana* Christenh., sp. nov.** (Figure 1A–B). Similar to *P. fraxinea* Sm., but differs by its distal pairs of pinnules that are similar in size and shape to the other pinnules (vs. progressively larger distally in *P. fraxinea*), the pinnules with a more or less abruptly caudate acuminate apex (vs. progressively narrowed or acuminate), a larger rhizome, up to 40 cm tall (vs. up to 20 cm, hemispherical). **Type:** KENYA. Taita Hills, *P. Kamau & M.J.M. Christenhusz* 638 (holotype EA; isotype K). **Etymology:** This species is widespread across tropical Africa, hence the name.

***Ptisana kingii* (Copel.) Christenh., comb. nov.** Basionym: *Marattia kingii* Copel., *Phil. J. Sci., Bot.* 6, pt. C: 66. 1911.

***Ptisana koordersii* (Alderw.) Christenh., comb. nov.** Basionym: *Marattia koordersii* Alderw., *Malayan Ferns, Suppl.*: 529. 1917.

***Ptisana senterreana* Christenh., sp. nov.** (Figure 2). Similar to *P. robusta* (Alston) Senterre & Rouhan, but is smaller in habit and has shortly oblong, sessile pinnules (less than three times longer than wide) with abruptly caudate to acuminate apices. It is one of the smallest species of *Ptisana* in Africa with petioles up to 60 cm. **Type:** CAMEROON. Central Province, near Nkolbison, 7 km W. of Yaounde, 18 January 1962, *F. Breteler* 2500 (holotype P [P01365197]; isotype WAG [WAG.1736404]). **Etymology:** This species is named for Bruno Senterre, who first recognised this species as new to science.

***Ptisana wernerii* (Rosenst.) Christenh., comb. nov.** Basionym: *Marattia wernerii* Rosenst., *Repert. Spec. Nov. Regni Veg.* 5: 44. 1908.



Figure 1: Ferns. A-B, *Ptisana africana* Christenh., sp. nov.; C, *Alsophila societarum* (Baker) Christenh.; and D, *Pteridium pseudocaudatum* (Clute) Christenh.. All images © Maarten Christenhusz.



Figure 2: **Ferns.** Isotype of *Ptisana senterreana* Christenh., sp. nov.. Image used with permission by Naturalis Biodiversity Center.

**F9. Hymenophyllaceae.** References: Ebihara *et al.* (2007), Christenhusz & Chase (2014).

**Note:** Hymenophyllaceae is divided in two clades, one represented by *Hymenophyllum* Sm., the other by *Trichomanes* L. Some authors have separated the second clade into a great number of genera, which is not in keeping with the traditional concept of *Trichomanes*. It is therefore preferred to maintain *Trichomanes* in the broad sense.

***Trichomanes beaverianum* (Senterre & Rouhan)** Christenh., comb. nov. Basionym: *Didymoglossum beaverianum* Senterre & Rouhan, *Phytotaxa* 292: 206. 2017.

***Trichomanes franceae* (Bauret & Dubuisson)** Christenh., comb. nov. Basionym: *Abrodictyum franceae* Bauret & Dubuisson, *Phytotaxa* 284: 163. 2016.

***Trichomanes hokuriense* (Ebihara)** Christenh., comb. nov. Basionym: *Vandenboschia hokuriensis* Ebihara, *Acta Phytotax. Geobot.* 60: 33. 2009.

***Trichomanes lofoushanense* (Ching)** Christenh., comb. nov. Basionym: *Vandenboschia lofoushanensis* Ching in Chien & Chun, *Fl. Reipubl. Pop. Sin.* 2: 356. 1959.

***Trichomanes mascarenense* (Pynee & Dubuisson)** Christenh. comb. & stat. nov. Basionym: *Crepidomanes minutum* (Blume) K.Iwats. var. *mascarenensis* Pynee & Dubuisson, *Phytotaxa* 62: 28. 2012.

***Trichomanes miuraense* (Ebihara)** Christenh., comb. nov. Basionym: *Vandenboschia miuraensis* Ebihara, *Acta Phytotax. Geobot.* 60: 35. 2009.

***Trichomanes nicobaricum* (R.D.Dixit & Sweta Singh)** Christenh., comb. nov. Basionym: *Microgonium nicobaricum* R.D.Dixit & Shweta Singh, *Indian Fern J.* 22(1-2): 182. 2005.

***Trichomanes tamonii* (Y.Robert & Dubuisson)** Christenh., comb. & stat. nov. Basionym: *Crepidomanes inopinatum* (Pic.Serm.) J.P.Roux var. *tamonii* Y.Robert & Dubuisson. *Phytotaxa* 173: 165. 2014.

***Trichomanes tubiflora* (F.S.Wagner)** Christenh., comb. nov. Basionym: *Vandenboschia tubiflora* F.S.Wagner, *Contr. Univ. Michigan Herb.* 20: 243. 1995.

**F16. Cyatheaceae.** Reference: Korall *et al.* (2007).

**Note:** As the genus *Alsophila* R.Br. appears to be now universally accepted (e.g. Christenhusz & Chase, 2014; PPG, 2016), the following species are transferred.

***Alsophila basirostrata* (Rakotondr. & Janssen)** Christenh., comb. nov. Basionym: *Cyathea basirostrata* Rakotondr. & Janssen, *Adansonia* 30: 270. 2008.

***Alsophila boiviniiformis* (Rakotondr. & Janssen)** Christenh., comb. nov. Basionym: *Cyathea boiviniiformis* Rakotondr. & Janssen, *Adansonia* 29: 198. 2007.

***Alsophila conferta* (Rakotondr. & Janssen)** Christenh., comb. nov. Basionym: *Cyathea conferta* Janssen & Rakotondr., *Adansonia* 30: 272. 2008.

***Alsophila dilatata* (Rakotondr. & Janssen)** Christenh., comb. nov. Basionym: *Cyathea dilatata* Rakotondr. & Janssen, *Adansonia* 30: 252. 2008.

***Alsophila emilei* (Janssen & Rakotondr.)** Christenh., comb. nov. Basionym: *Cyathea emilei* Janssen & Rakotondr., *Adansonia* 30: 293. 2008.

***Alsophila hebes* (Janssen & Rakotondr.)** Christenh., comb. nov. Basionym: *Cyathea hebes* Janssen & Rakotondr., *Adansonia* 30: 276. 2008.

***Alsophila impolita* (Rakotondr. & Janssen)** Christenh., comb. nov. Basionym: *Cyathea impolita* Rakotondr. & Janssen, *Adansonia* 29: 203. 2007.

***Alsophila ivohibensis* (C.Chr.)** Christenh., comb. nov. Basionym: *Cyathea quadrata* Baker var. *ivohibensis* C.Chr., *Dansk Bot. Ark.* 7: 28. 1932.

***Alsophila lisyae* (Janssen & Rakotondr.)** Christenh., comb. nov. Basionym: *Cyathea lisyae* Janssen & Rakotondr., *Adansonia* 30: 258. 2008.

***Alsophila longispina* (Janssen & Rakotondr.)** Christenh., comb. nov. Basionym: *Cyathea longispina* Janssen & Rakotondr., *Adansonia* 30: 300. 2008.

***Alsophila meridionalis* (Janssen & Rakotondr.)** Christenh., comb. nov. Basionym: *Cyathea meridionalis* Janssen & Rakotondr., *Adansonia* 30: 260. 2008.

***Alsophila obtecta* (Rakotondr. & Janssen)** Christenh., comb. nov. Basionym: *Cyathea obtecta* Rakotondr. & Janssen, *Adansonia* 30: 307. 2008.

***Alsophila pseudobellisquamata* (Janssen & Rakotondr.)** Christenh., comb. nov. Basionym: *Cyathea pseudobellisquamata* Janssen & Rakotondr., *Adansonia* 30: 310. 2008.

***Alsophila roroka* (Hovenkamp)** Christenh., comb. nov. Basionym: *Cyathea roroka* Hovenkamp, *Blumea* 33: 397. 1988.

***Alsophila rouhaniana* (Rakotondr. & Janssen)** Christenh., comb. nov. Basionym: *Cyathea rouhaniana* Rakotondr. & Janssen, *Adansonia* 29: 207. 2007.

***Alsophila pacifica* Christenh., nom. nov.** Replaced synonym: *Cyathea samoensis* Baker, *J. Bot.* 14: 9. 1876, not: *A. samoensis* Brack. Etymology: This species occurs in the Pacific.

***Alsophila societarum* (Baker)** Christenh., comb. nov. Basionym: *Cyathea societarum* Baker, *Syn. Fil. (Hooker & Baker) ed.* 2: 453. 1874. (Figure 1C)

**Alsophila valdesquamata** (Janssen & Rakotondr.) Christenh., *comb. nov.* Basionym: *Cyathea valdesquamata* Janssen & Rakotondr., *Adansonia* 30: 358. 2008.

**Cyathea flava** (R.M.Tryon) Christenh., *comb. nov.* Basionym: *Trichipteris flava* R.M.Tryon, *Fieldiana, Bot. n. s.* 20: 125. 1989.

#### F17. Cystodiaceae

**Note:** The following taxon is best treated at the species level. It is the second species known in this family.

**Cystodium solomonense** (J.R.Croft) Christenh., *comb. & stat. nov.* Basionym: *Cystodium sorbifolium* subsp. *solomonense* J.R.Croft, *Kew Bull.* 41: 902. 1986.

#### F19. Saccolomataceae. Reference: Luong et al. (2015).

**Note:** The genus *Orthiopteris* Copel. is similar morphologically to *Saccoloma* Kaulf. (Luong et al. 2015), and molecular studies do not discriminate between the two genera. As it is clear that the two are closely related and to prevent recognition of a paraphyletic genus, *Saccoloma* is here expanded to include *Orthiopteris*. Most of the species of *Orthiopteris* have already been combined into *Saccoloma* in the past.

**Saccoloma acuminatum** (Rosenst.) Christenh., *comb. nov.* Basionym: *Dennstaedtia acuminata* Rosenst., *Hedwigia* 56: 350. 1915.

**Saccoloma cicutarioides** (Baker) Christenh., *comb. nov.* Basionym: *Davallia cicutarioides* Baker, *J. Bot. (Britten)* 28: 106. 1890.

**Saccoloma samoense** (Hovenkamp & T.T.Luong) Christenh., *comb. nov.* Basionym: *Orthiopteris samoensis* Hovenkamp & T.T.Luong, *PhytoKeys* 53: 60. 2015.

#### F20. Lindsaeaceae. Reference: Lehtonen et al. (2010).

**Note:** A few species were omitted when the family was revised. They are hereby transferred into their correct genus.

**Lindsaea stortii** (Alderw.) Christenh., *comb. nov.* Basionym: *Schizoloma stortii* Alderw., *Bull. Jard. Bot. Buitenzorg Ser. 2, XVI*: 36. 1914.

**Odontosoria goudotiana** (Kunze) Christenh., *comb. nov.* Basionym: *Davallia goudotiana* Kunze, *Analecta Pterid.* 35. 1837.

**Odontosoria humbertii** (Tardieu) Christenh., *comb. nov.* Basionym: *Sphenomeris humbertii* Tardieu, *Notul. Syst. (Paris)* 15: 182. 1956.

**Odontosoria madagascariensis** (Baker) Christenh., *comb. nov.* Basionym: *Lindsaea madagascariensis* Baker, *J. Linn. Soc., Bot.* 16: 198. 1877, as '*Lindsaya madagascariensis*'.

#### F21. Dennstaedtiaceae

**Note:** *Pteridium* Gled. ex Scop. has received some attention in phylogenetic studies, and a system of species and subspecies was proposed (Der et al., 2009). We think it better to elevate subspecific taxa as species as they are geographically isolated. This will simplify the taxonomy of a genus with a contentious nomenclatural history.

**Pteridium campestre** (Schrad.) Christenh., *comb. nov.*

Basionym: *Pteris campestris* Schrad., *Gött. gel. Anz. Aufs. König. Gesellsch. Wiss.* 1824: 871. 1824.

**Pteridium decompositum** (Gaudich.) Christenh., *comb. nov.* Basionym: *Pteris decomposita* Gaudich., *Voy. Uranie, Bot.* 4: 393. 1826.

**Pteridium pseudocaudatum** (Clute) Christenh., *comb. & stat. nov.* Basionym: *Pteridium aquilinum* (L.) Kuhn var. *pseudocaudatum* Clute, *Fern Bull.* 8: 39. 1900. (Figure 1D)

**Pteridium pubescens** (Underw.) Christenh., *comb. & stat. nov.* Basionym: *Pteridium aquilinum* (L.) Kuhn var. *pubescens* Underw., *Our Native Ferns*, ed. 6: 91. 1900.

#### F22. Pteridaceae. Reference: Eiserhardt et al. (2011).

**Note:** Subfamily Cheilanthesoideae consisted of several genera that were found not to be monophyletic. As a result a number of genera were coined that were morphologically indiscriminate. As numerous hybrids are known, a number of intergeneric hybrids would additionally need to be coined. As this has been destabilising the nomenclature of genera like *Cheilanthes* Sw., *Doryopteris* J.Sm. and *Pellaea* Link, it seems reasonable to treat the entire subfamily as a single genus, stabilising this genus in future taxonomic study, which is in line with the treatment of other large genera in ferns like *Asplenium* and *Pteris* L.. *Hemionitis* L. has nomenclatural priority and thus all taxa are transferred into this genus.

**Hemionitis achariorum** Christenh., *nom. nov.* Replaced synonym: *Pteris palmata* Willd. sp. 5. 357. 1810, not: *Hemionitis palmata* L., *Sp. Pl.* 2: 1077. 1753. Etymology: Named for the Acharis, a race of sad wormlike creatures from *The Neverending Story* (Ende, 1979).

**Hemionitis aconitifolia** Christenh., *nom. nov.* Replaced synonym: *Cassebeera paradoxa* Féé, *Mém. Fam. Foug.* 7: 30. 1857, not: *Hemionitis paradoxa* (R.Br.) Christenh. Etymology: This species have leaves that resemble *Aconitum* (Ranunculaceae).

**Hemionitis acta** (Sehnem) Christenh., *comb. nov.* Basionym: *Adiantopsis acta* Sehnem, *Pesquisas* 3: 508. 1959.

**Hemionitis acutiloba** (Prantl) Christenh., *comb. nov.* Basionym: *Pellaea acutiloba* Prantl, *Bot. Jahrb. Syst.* 3: 425. 1882.



Figure 3: **Ferns.** A, *Hemionitis amarganthica* Christenh.; B, *Hemionitis concolor* (Langsd. & Fisch.) Christenh.; C, *Hemionitis himalaica* (Fraser-Jenk.) Christenh.; D, *Hemionitis hispida* (Mett. ex Kuhn) Christenh.; E, *Hemionitis querquobadii* Christenh.; and F, *Hemionitis sinuata* (Lag. ex Sw.) Christenh.. All images © Maarten Christenhusz.

**Hemionitis adiantoides** (T.C.Chambers & P.A.Farrant) Christenh., comb. nov. Basionym: *Cheilanthes adiantoides* T.C.Chambers & P.A.Farrant, *Telopea* 4: 532. 1991.

**Hemionitis adiantopsis** Christenh., nom. nov. Replaced synonym: *Hypolepis pedata* Hook., *Sp. Fil.* 2: 73. 1852, not: *Hemionitis pedata* Sw. Etymology: Named for the former genus *Adiantopsis*, now included in *Hemionitis*. It means 'resembling *Adiantum*' (Pteridaceae)

**Hemionitis adornata** (Yesilyurt) Christenh., comb. nov. Basionym: *Doryopteris adornata* Yesilyurt, *Bot. J. Linn. Soc.* 158: 73. 2008.

**Hemionitis aemula** (Maxon) Christenh., comb. nov. Basionym: *Cheilanthes aemula* Maxon, *Contr. U.S. Natl. Herb.* 10: 495. 1908.

**Hemionitis aethiopica** (Saiki) Christenh., comb. nov. Basionym: *Aleuritopteris aethiopica* Saiki, *J. Phytogeogr. Taxon.* 32: 81. 1984.

**Hemionitis affinis** (Mett.) Christenh., comb. nov. Basionym: *Cheilanthes affinis* Mett., *Abh. Senckenberg. Naturf. Ges.* 3: 63. 1859.

**Hemionitis agetae** (Saiki) Christenh., comb. nov. Basionym: *Aleuritopteris agetae* Saiki, *J. Phytogeogr. Taxon.* 32: 1. 1984.

**Hemionitis aiuolae** Christenh., nom. nov. Replaced synonym: *Cheilanthes boivini* Mett. ex Kuhn, *Fil. Afr.* 69. 1868, not: *Hemionitis boivinii* (Hook.) Christenh. Etymology: Named for Dame Eyola (or Aiúóla), a plant taking the form of a motherly woman who lives in the House of Change; from *The Neverending Story* (Ende, 1979).

**Hemionitis alabamensis** (Buckley) Christenh., comb. nov. Basionym: *Pteris alabamensis* Buckley, *Amer. J. Sci. Arts* 45: 177. 1843.

**Hemionitis alata** (Prantl) Christenh., comb. nov. Basionym: *Adiantopsis alata* Prantl, *Gartenflora* 32: 99. 1883.

**Hemionitis albofusca** (Baker) Christenh., comb. nov. Basionym: *Cheilanthes albofusca* Baker, *Bull. Misc. Inf. Kew* 1895(99): 54. 1895.

**Hemionitis albomarginata** (Clarke) Christenh., comb. nov. Basionym: *Cheilanthes albomarginata* Clarke, *Trans. Linn. Soc. Lond. II. Bot.* 1: 456. 1880.

**Hemionitis aliena** (Maxon) Christenh., comb. nov. Basionym: *Notholaena aliena* Maxon, *Contr. U.S. Natl. Herb.* 17: 605. 1916.

**Hemionitis alleniae** (R.M.Tryon) Christenh., comb. nov. Basionym: *Doryopteris alleniae* R.M.Tryon, *Contrib. Gray Herb.* 191: 91. 1962.

**Hemionitis allosuroides** (Mett.) Christenh., comb. nov. Basionym: *Cheilanthes allosuroides* Mett., *Abh. Senckenberg. Naturf. Ges.* 3: 76. 1859.

**Hemionitis amarganthea** Christenh., nom. nov. Replaced synonym: *Pteris argentea* S.G.Gmel., *Novi Comment. Acad. Sci. Imp. Petrop.* 12: 519. 1769, not: *Hemionitis argentea* Willd. Etymology: Named for Amarganth, a city in the magical land of Fantastica from *The Neverending Story* (Ende, 1979). (Figure 3A)

**Hemionitis ambigua** (Fée) Christenh., comb. nov. Basionym: *Synochlamys ambigua* Fée, *Mém. Soc. Sci. Nat. Strasbourg* 5: 35. 1857.

**Hemionitis anceps** (Blanf.) Christenh., comb. nov. Basionym: *Cheilanthes anceps* Blanf., *J. Simla Natural. Soc.* 1: 21. 1886.

**Hemionitis andromedifolia** (Kaulf.) Christenh., comb. nov. Basionym: *Pteris andromedifolia* Kaulf., *Enum. Filic.* 188. 1824.

**Hemionitis angelica** (K.Wood & W.H.Wagner) Christenhusz, comb. nov. Basionym: *Doryopteris angelica* K.Wood & W.H.Wagner, *Contr. Univ. Michigan Herb.* 22: 147. 1999.

**Hemionitis angolensis** (Schelpe) Christenh., comb. nov. Basionym: *Pellaea angolensis* Schelpe, *Garcia de Orta, Ser. Bot.* 3: 53. 1976.

**Hemionitis angulosa** (Bory ex Willd.) Christenh., comb. nov. Basionym: *Pteris angulosa* Bory ex Willd., *Sp. Pl. ed. quarta*: 377. 1810.

**Hemionitis angusta** (R.M.Tryon) Christenh., comb. nov. Basionym: *Notholaena angusta* R.M.Tryon, *Rhodora* 63: 80. 1961.

**Hemionitis angustata** (Sehnem) Christenh., comb. nov. Basionym: *Doryopteris angustata* Sehnem, *Fl. Ilustr. Catarin.* 1: 140. 1972.

**Hemionitis angustifolia** (Kunth) Christenh., comb. nov. Basionym: *Cheilanthes angustifolia* Kunth, *Nov. Gen. Sp., quarto ed.* 1: 21. 1815.

**Hemionitis angustifrondosa** (Alston) Christenh., comb. nov. Basionym: *Cheilanthes angustifrondosa* Alston, *Bull. Brit. Mus. (Nat. Hist.), Bot.* 1: 48. 1952.

**Hemionitis apiacea** (Mickel) Christenh., comb. nov. Basionym: *Cheilanthes apiacea* Mickel, *Mem. New York Bot. Gard.* 88: 182. 2004.

**Hemionitis apparicioi** (Brade) Christenh., comb. nov. Basionym: *Doryopteris apparicioi* Brade, *Arq. Jard. Bot. Rio de Janeiro* 18: 27. 1965.

**Hemionitis arequipensis** (Maxon) Christenh., comb. nov. Basionym: *Notholaena arequipensis* Maxon, *Smithsonian Misc. Collect.* 65: 9. 1915.

**Hemionitis argyrophylla** (Sw.) Christenh., comb. nov. Basionym: *Pteris argyrophylla* Sw., *Syn. Fil.*: 105. 1806.

**Hemionitis arizonica** (Maxon) Christenh., comb. & stat. nov. Basionym: *Cheilanthes pyramidalis* Fée subsp. *arizonica* Maxon, *Amer. Fern J.* 8: 116. 1918.

**Hemionitis artax** Christenh., nom. nov. Replaced synonym: *Cheilanthes dealbata* Pursh, Fl. Amer. Sept. 2: 671. 1814, not: *Hemionitis dealbata* Willd. Etymology: Named for Atreju's horse in *The Neverending Story* (Ende, 1979).

**Hemionitis aschenborniana** (Klotzsch) Christenh., comb. nov. Basionym: *Notholaena aschenborniana* Klotzsch, Linnaea 20: 417. 1847.

**Hemionitis atreyi** Christenh., nom. nov. Replaced synonym: *Cheilanthes acrostica* Tod., Giorn. Sci. Nat. Econ. Palermo 1: 215. 1866, not: *Hemionitis acrosticha* Noronha (1827). Etymology: Named for Atreyu, the boy warrior in *The Neverending Story* (Ende, 1979).

**Hemionitis atropurpurea** (L.) Christenh., comb. nov. Basionym: *Pteris atropurpurea* L., Sp. Pl. 2: 1076. 1753.

**Hemionitis aurantiaca** (Cav.) Christenh., comb. nov. Basionym: *Pteris aurantiaca* Cav., Descr. Pl.: 266. 1801.

**Hemionitis aurea** (Link-Pérez, Seabolt & Ledford) Christenh., comb. nov. Basionym: *Adiantopsis aurea* Link-Pérez, Seabolt & Ledford, Syst. Bot. 41: 913. 2016.

**Hemionitis aureolina** (Yatsk. & Arbeláez) Christenh., comb. nov. Basionym: *Notholaena aureolina* Yatsk. & Arbeláez, Novon 18: 120. 2008. Replaced synonym: *Cheilanthes aurea* Baker, Syn. Fil.: 452. 1868, not: *Hemionitis aurea* Willd.

**Hemionitis auryn** Christenh., nom. nov. Replaced synonym: *Notholaena aurantiaca* D.C.Eaton, Proc. Amer. Acad. Arts Sci. 22: 462. 1887, not: *Hemionitis aurantiaca* (Cav.) Christenh. Etymology: Named for AURYN a protective amulet in *The Neverending Story* (Ende, 1979).

**Hemionitis austrotenuifolia** (H.M.Quirk & T.C.Chambers) Christenh., comb. nov. Basionym: *Cheilanthes austrotenuifolia* H.M.Quirk & T.C.Chambers, Austral. J. Bot. 31: 510. 1983.

**Hemionitis baturitensis** (Brade) Christenh., comb. nov. Basionym: *Doryopteris baturitensis* Brade, Rodriguesia 4: 297. 1940.

**Hemionitis beitelii** (Mickel) Christenh., comb. nov. Basionym: *Cheilanthes beitelii* Mickel, Mem. New York Bot. Gard. 46: 107. 1988.

**Hemionitis belangeri** (Bory) Christenh., comb. nov. Basionym: *Pteris belangeri* Bory in Belang., Voy. Indes Or. 2: 44. 1833.

**Hemionitis belensis** (Weath. ex Copel.) Christenh., comb. nov. Basionym: *Cheilanthes belensis* Weath. ex Copel., Univ. Calif. Publ. Bot. 18: 218. 1942.

**Hemionitis bergiana** (Schltdl.) Christenh., comb. nov. Basionym: *Cheilanthes bergiana* Schltdl., Adumbr. Pl. 1: 51. 1825.

**Hemionitis bhutanica** (Fraser-Jenk. & Wangdi) Christenh., comb. nov. Basionym: *Cheilanthes bhutanica* Fraser-Jenk. & Wangdi, Fern Gaz. 18: 220. 2009.

**Hemionitis bicolor** (Roxb.) Christenh., comb. nov. Basionym: *Pteris bicolor* Roxb., Calcutta J. Nat. Hist. 4: 507. 1844.

**Hemionitis boivinii** (Hook.) Christenh., comb. nov. Basionym: *Pellaea boivinii* Hook., Sp. Fil. 2: 147. 1858.

**Hemionitis bolborrhiza** (Mickel & Beitel) Christenh., comb. nov. Basionym: *Cheilanthes bolborrhiza* Mickel & Beitel, Mem. New York Bot. Gard. 46: 107. 1988.

**Hemionitis bonapartei** (J.P.Roux) Christenh., comb. nov. Basionym: *Cheilanthes bonapartei* J.P.Roux, Strelitzia 23: 180. 2009.

**Hemionitis bonariensis** (Willd.) Christenh., comb. nov. Basionym: *Acrostichum bonariense* Willd., Sp. Pl. ed. quarta 5: 114. 1810.

**Hemionitis botswanae** (Schelpe & N.C.Anthony) Christenh., comb. nov. Basionym: *Cheilanthes botswanae* Schelpe & N.C.Anthony, Contr. Bolus Herb. 10: 151. 1982.

**Hemionitis brachyptera** (T.Moore) Christenh., comb. nov. Basionym: *Platyloma brachyptera* T.Moore, Gard. Chron. 1873: 141. 1873.

**Hemionitis brachypus** (Kunze) Christenh., comb. nov. Basionym: *Cheilanthes squamosa* Gillies & Hook. ex Grev. var. *brachypus* Kunze, Linnaea 18: 340. 1844.

**Hemionitis bradburii** (Hook.) Christenh., comb. nov. Basionym: *Cheilanthes bradburii* Hook., Sp. Filic. 2: 97. 1852. Replaced synonym: *Cheilanthes tomentosa* Link, Hort. Berol. 2: 42. 1833, not: *Hemionitis tomentosa* Raddi

**Hemionitis brandegeei** (D.C.Eaton) Christenh., comb. nov. Basionym: *Cheilanthes brandegeei* D.C.Eaton, Bull. Torrey Bot. Club 17: 215. 1890.

**Hemionitis brandtii** (Franch & Sav.) Christenh., comb. nov. Basionym: *Cheilanthes brandtii* Franch. & Sav., Enum. Pl. Jap. 2: 212. 1879.

**Hemionitis branneri** (Copel.) Christenh., comb. nov. Basionym: *Doryopteris branneri* Copel., Phil. J. Sci. 38: 148. 1929.

**Hemionitis brasiliensis** (Baker) Christenh., comb. nov. Basionym: *Pellaea brasiliensis* Baker, Bot. Jahrb. Syst. 17: 522. 1893, not: *Hemionitis brasiliiana* Desv.

**Hemionitis breweri** (D.C.Eaton) Christenh., comb. nov. Basionym: *Pellaea breweri* D.C.Eaton, Proc. Amer. Acad. Arts Sci. 6: 555. 1865.

**Hemionitis bridgesii** (Hook.) Christenh., comb. nov. Basionym: *Pellaea bridgesii* Hook., Sp. Fil. 2: 238. 1858.

- Hemionitis brownii* (Desv.) Christenh., comb. nov.** Basionym: *Notholaena brownii* Desv., Mémoires de la Société Linnaea 6: 220. 1827.
- Hemionitis bryopoda* (Maxon) Christenh., comb. nov.** Basionym: *Notholaena bryopoda* Maxon, Proc. Biol. Soc. Washington 18: 205. 1905.
- Hemionitis buchtienii* (Rosenst.) Christenh., comb. nov.** Basionym: *Notholaena buchtienii* Rosenst., Repert. Spec. Nov. Regni Veg. 5: 238. 1908.
- Hemionitis bulbosa* (Kunze) Christenh., comb. nov.** Basionym: *Cheilanthes bulbosa* Kunze, Linnaea 24: 274. 1851.
- Hemionitis caesia* (Christ) Christenh., comb. nov.** Basionym: *Cheilanthes caesia* Christ, Bull. Acad. Int. Géogr. Bot. Mans 16: 133. 1906.
- Hemionitis cairon* Christenh., nom. nov.** Replaced synonym: *Notholaena peninsularis* Maxon & Weath., Contr. Gray Herb. 127: 15. 1939. Etymology: Named for centaur Cairon in *The Neverending Story* (Ende, 1979).
- Hemionitis calidirupium* (Brownsey & Lovis) Christenh., comb. nov.** Basionym: *Pellaea calidirupium* Brownsey & Lovis, New Zealand J. Bot. 28: 197. 1990.
- Hemionitis californica* (Hook.) Christenh., comb. nov.** Basionym: *Hypolepis californica* Hook., Sp. Fil. 2: 71. 1851.
- Hemionitis calomelanos* (Sw.) Christenh., comb. nov.** Basionym: *Pteris calomelanos* Sw., J. Bot. (Schrader) 1800(2): 70. 1801.
- Hemionitis camposportoi* (Brade) Christenh., comb. nov.** Basionym: *Doryopteris camposportoi* Brade, Arq. Inst. Biol. Veg. Rio de Janeiro 3: 3. 1936.
- Hemionitis candida* (M.Martens & Galeotti) Christenh., comb. nov.** Basionym: *Cheilanthes candida* M.Martens & Galeotti, Nouv. Mém. Acad. Roy. Sci. Bruxelles 15: 73. 1842.
- Hemionitis cantangensis* (R.M.Tryon) Christenh., comb. nov.** Basionym: *Notholaena cantangensis* R.M.Tryon, Rhodora 63: 81. 1961.
- Hemionitis capensis* (Thunb.) Christenh., comb. nov.** Basionym: *Adiantum capense* Thunb., Prodri. Pl. Cap.: 173. 1800.
- Hemionitis carlottahalliae* (W.H.Wagner & E.F.Gilbert) Christenh., comb. nov.** Basionym: *Cheilanthes carlottahalliae* W.H.Wagner & E.F.Gilbert, Amer. J. Bot. 44: 738. 1957.
- Hemionitis caudata* (R.Br.) Christenh., comb. nov.** Basionym: *Cheilanthes caudata* R.Br., Prodri. Fl. Nov. Holland.: 156. 1810.
- Hemionitis ceterachoides* (A.W.Klopper & Klopper) Christenh., comb. nov.** Basionym: *Cheilanthes ceterachoides* A.W.Klopper & Klopper, Ferns S. Afr. Compreh. Guide: 747. 2011.

- Hemionitis cheilanthesoides* (R.M.Senna) Christenh., comb. nov.** Basionym: *Adiantopsis cheilanthesoides* R.M.Senna, Iheringia, Bot. 59: 108. 2004.
- Hemionitis cheiloglyphis* (Fée) Christenh., comb. nov.** Basionym: *Myriopteris cheiloglyphis* Fée, Mémoires de la Société Linnaea 8: 77. 1857.
- Hemionitis cheirolepton* Christenh., nom. nov.** Replaced synonym: *Pteris rigida* Sw., Syn. Filic.: 104, 299. 1806, not: *Hemionitis rigida* Cav. Etymology: Named for former genus *Cheirolepton*, now included in *Hemionitis*.
- Hemionitis chihuahuensis* (Saiki) Christenh., comb. nov.** Basionym: *Aleuritopteris chihuahuensis* Saiki, J. Phytogeogr. Taxon. 32: 85. 1984.
- Hemionitis chilensis* (Fée & J.Remy) Christenh., comb. nov.** Basionym: *Cincinalis chilensis* Fée & J.Remy, Fl. Chil. 6: 497. 1853.
- Hemionitis chinensis* (Baker) Christenh., comb. nov.** Basionym: *Notholaena chinensis* Baker, Gard. Chr. n. s. 14: 494. 1880.
- Hemionitis chipinquensis* (Knobloch & Lellinger) Christenh., comb. nov.** Basionym: *Cheilanthes chipinquensis* Knobloch & Lellinger, Amer. Fern J. 59: 8. 1969.
- Hemionitis chlorophylla* (Sw.) Christenh., comb. nov.** Basionym: *Cheilanthes chlorophylla* Sw., Kongl. Vetensk. Acad. Handl. 1817: 76. 1817.
- Hemionitis christensenii* Christenh., nom. nov.** Replaced synonym: *Pellaea smithii* C.Chr., Acta Horti Gothob. 1: 84. 1924, not: *Hemionitis smithii* (Trev.) C.Chr. Etymology: Named for Carl Christensen, who first described this species.
- Hemionitis christii* (Fraser-Jenk. & Yatsk.) Christenh., comb. nov.** Basionym: *Cheilanthes christii* Fraser-Jenk. & Yatsk., Indian Fern J. 27: 213. 2011. Replaced synonym: *Pteris paupercula* Christ, Bull. Acad. Int. Géogr. Bot. 16: 131. 1906, not: *Hemionitis paupercula* (Kunze) Christenh.
- Hemionitis chrysophylla* (Hook.) Christenh., comb. nov.** Basionym: *Cheilanthes chrysophylla* Hook., Sp. Fil. 2: 113. 1852.
- Hemionitis chusana* (Hook.) Christenh., comb. nov.** Basionym: *Cheilanthes chusana* Hook., Sp. Fil. 2: 95. 1852.
- Hemionitis cinnamomea* (Baker) Christenh., comb. nov.** Basionym: *Notholaena cinnamomea* Baker, Syn. Filic. (ed. 2): 515. 1874.
- Hemionitis clevelandii* (D.C.Eaton) Christenh., comb. nov.** Basionym: *Cheilanthes clevelandii* D.C.Eaton, Bull. Torrey Bot. Club 6: 33. 1875.
- Hemionitis cochisensis* (Goode) Christenh., comb. nov.** Basionym: *Notholaena cochisensis* Goode, Muhlenbergia 8: 93. 1912.

- Hemionitis collina** (Raddi) Christenh., *comb. nov.*  
Basionym: *Pteris collina* Raddi, *Opusc. Sci.* 3: 292. 1819.
- Hemionitis columbina** (Hook.) Christenh., *comb. & stat. nov.* Basionym: *Pellaea lomariacea* Hook. var. *columbina* Hook., *Sp. Filic.* 2: 133. 1858.
- Hemionitis complanata** (A.R.Sm.) Christenh., *comb. nov.* Basionym: *Cheilanthes complanata* A.R.Sm., *Amer. Fern J.* 70: 19. 1980.
- Hemionitis concolor** (Langsd. & Fisch.) Christenh., *comb. nov.* Basionym: *Pteris concolor* Langsd. & Fisch., *Icon. Filic.* 19: pl. 21. 1810. (Figure 3B)
- Hemionitis conformis** (K.U.Kramer & R.M.Tryon) Christenh., *comb. nov.* Basionym: *Doryopteris conformis* K.U.Kramer & R.M.Tryon, *Ann. Missouri Bot. Gard.* 42: 213. 1955.
- Hemionitis connectens** (C.Chr.) Christenh., *comb. nov.* Basionym: *Pellaea connectens* C.Chr., *Acta Horti Gothob.* 1: 84. 1924.
- Hemionitis contigua** (Baker) Christenh., *comb. nov.* Basionym: *Cheilanthes contigua* Baker, *Syn. Fil.* 476. 1874.
- Hemionitis contracta** (Kunze) Christenh., *comb. nov.* Basionym: *Cheilanthes contracta* Kunze, *Linnaea* 28: 243. 1850.
- Hemionitis cooperae** (D.C.Eaton) Christenh., *comb. nov.* Basionym: *Cheilanthes cooperae* D.C.Eaton, *Bull. Torrey Bot. Club* 6: 33. 1875.
- Hemionitis cordifolia** (Sessé & Moc.) Christenh., *comb. nov.* Basionym: *Adiantum cordifolium* Sessé & Moc., *Naturaleza (Mexico City)* ser. 2, 1(App.): 182. 1890, not: *Hemionitis cordifolia* Roxb. ex Wall., *nom. inval.*, *nom. nud.*
- Hemionitis covillei** (Maxon) Christenh., *comb. nov.* Basionym: *Cheilanthes covillei* Maxon, *Proc. Biol. Soc. Washington* 31: 147. 1918.
- Hemionitis crassifolia** (Houlston & T.Moore) Christenh., *comb. nov.* Basionym: *Notholaena crassifolia* Houlston & T.Moore, *Gard. Mag. Bot.* 3: 20. 1851.
- Hemionitis cremea** (Ching) Christenh., *comb. nov.* Basionym: *Aleuritopteris cremea* Ching, *Acta Phytotax. Sin.* 19: 65. 1981.
- Hemionitis crenata** (R.M.Tryon) Christenh., *comb. nov.* Basionym: *Pellaea crenata* R.M.Tryon, *Contr. Gray Herb.* 143: 68. 1942.
- Hemionitis crenulans** (Fée) Christenh., *comb. nov.* Basionym: *Pellaea crenulans* Fée, *Crypt. Vasc. Brésil* 2: 27. 1872.
- Hemionitis crinoidea** (Link-Pérez & Hickey) Christenh., *comb. nov.* Basionym: *Adiantopsis crinoidea* Link-Pérez & Hickey, *Syst. Bot.* 36: 571. 2011.
- Hemionitis crispatula** (Baker) Christenh., *comb. nov.* Basionym: *Pellaea crispatula* Baker, *Ann. Bot. (Oxford)* 5: 215. 1891.
- Hemionitis cubensis** (Weath ex R.M.Tryon) Christenh., *comb. nov.* Basionym: *Notholaena cubensis* Weath. ex R.M.Tryon, *Contr Gray Herb.* 179: 49. 1956.
- Hemionitis cucullans** (Fée) Christenh., *comb. nov.* Basionym: *Cheilanthes cucullans* Fée, *Mém. Foug.* 7: 39. 1857.
- Hemionitis cuneata** (Kaulf. ex Link) Christenh., *comb. nov.* Basionym: *Cheilanthes cuneata* Kaulf. ex Link, *Hort. Berol.* 2: 40. 1833.
- Hemionitis cuspidata** (Copel.) Christenh., *comb. nov.* Basionym: *Doryopteris cuspidata* Copel., *Phil. J. Sci.* 38: 148. 1929.
- Hemionitis cyclophylla** (A.R.Sm.) Christenh., *comb. nov.* Basionym: *Doryopteris cyclophylla* A.R.Sm., *Ann. Missouri Bot. Gard.* 77: 262. 1990.
- Hemionitis cymbiformis** (Prado) Christenh., *comb. nov.* Basionym: *Pellaea cymbiformis* Prado, *Amer. Fern J.* 83: 129. 1993.
- Hemionitis dactylifera** (Link-Pérez & Hickey) Christenh., *comb. nov.* Basionym: *Adiantopsis dactylifera* Link-Pérez & Hickey, *Syst. Bot.* 36: 576. 2011.
- Hemionitis dalhousiae** (Hook.) Christenh., *comb. nov.* Basionym: *Cheilanthes dalhousiae* Hook., *Sp. Fil.* 2: 80. 1852.
- Hemionitis davidsei** (A.R.Sm.) Christenh., *comb. nov.* Basionym: *Doryopteris davidsei* A.R.Sm., *Ann. Missouri Bot. Gard.* 77: 262. 1990.
- Hemionitis deboeri** (Verdc.) Christenh., *comb. nov.* Basionym: *Cheilanthes deboeri* Verdc., *Fl. Trop. E. Africa, Adiantac.*: 40. 2002.
- Hemionitis decipiens** (Hook.) Christenh., *comb. nov.* Basionym: *Pteris decipiens* Hook., *Sp. Fil.* 2: 209. 1858.
- Hemionitis decomposita** (M.Martens & Galeotti) Christenh., *comb. nov.* Basionym: *Allosorus decompositus* M.Martens & Galeotti, *Mém. Foug. Mex.*: 48. 1842.
- Hemionitis decora** (Brackenr.) Christenh., *comb. nov.* Basionym: *Doryopteris decora* Brackenr., *U.S. Expl. Exped., Filic.* 16: 103. 1854.
- Hemionitis decurrens** (Mickel) Christenh., *comb. nov.* Basionym: *Cheilanthes decurrens* Mickel, *Mem. New York Bot. Gard.* 88: 191. 2004.
- Hemionitis decisiva** (Forssk.) Christenh., *comb. nov.* Basionym: *Pteris decisiva* Forssk., *Fl. Aegypt.-Arab.*: 186. 1775.
- Hemionitis delavayi** (Baker) Christenh., *comb. nov.* Basionym: *Gymnogramme delavayi* Baker, *Ann. Bot. (Oxford)* 5: 484. 1891.
- Hemionitis delicate** Christenh., *nom. nov.* Replaced synonym: *Cheilanthes delicatula* Tagawa & K.Iwats., *Acta Phytotax. Geobot.* 25: 19. 1971, not: *Hemionitis delicatula* (Maxon & Weath.) Christenh. Etymology: From Latin *delicatus*, delightful.

**Hemionitis delicatula** (Maxon & Weath.) Christenh., *comb. nov.* Basionym: *Notholaena delicatula* Maxon & Weath., *Contr. Gray Herb.* 127: 7. 1939.

**Hemionitis deltoidea** (Kunze) Christenh., *comb. nov.* Basionym: *Cheilanthes deltoidea* Kunze, *Linnaea* 10: 536. 1836.

**Hemionitis densa** (Brackenr.) Christenh., *comb. nov.* Basionym: *Onychium densa* Brackenr., *U.S. Expl. Exped., Filic.* 16: 120. 1854.

**Hemionitis depauperata** (Baker) Christenh., *comb. nov.* Basionym: *Cheilanthes depauperata* Baker, *Ann. Bot. (Oxford)* 6: 210. 1891.

**Hemionitis dichotoma** (Sw.) Christenh., *comb. nov.* Basionym: *Cheilanthes dichotoma* Sw., *Syn. Filic.* 129: 335. 1806.

**Hemionitis dilimanensis** (Zamora) Christenh., *comb. nov.* Basionym: *Cheilanthes dilimanensis* Zamora, *Kalikasan* 3: 193. 1974.

**Hemionitis dinteri** (Brause) Christenh., *comb. nov.* Basionym: *Cheilanthes dinteri* Brause, *Bot. Jahrb. Syst.* 53: 385. 1915.

**Hemionitis distans** (R.Br.) Christenh., *comb. nov.* Basionym: *Notholaena distans* R.Br., *Prod. Fl. Nov. Holland.*: 146. 1810.

**Hemionitis dolomitcola** (Schelpe) Christenh., *comb. nov.* Basionym: *Pellaea dolomitcola* Schelpe, *J. S. African Bot.* 34: 239. 1968.

**Hemionitis doniana** (J.Sm. ex Hook.) Christenh., *comb. nov.* Basionym: *Pellaea doniana* J.Sm. ex Hook., *Sp. Fil.* 2: 137. 1858.

**Hemionitis doryopteris** Christenh., *nom. nov.* Replaced synonym: *Pteris pedata* L., *Sp. Pl.* 2: 1075. 1753, not: *Hemionitis pedata* Sw. Etymology: Named for former genus *Doryopteris*, now included in *Hemionitis*.

**Hemionitis drakeana** (Jeanp. ex C.Chr.) Christenh., *comb. nov.* Basionym: *Trachypteris drakeana* Jeanp. ex C.Chr. in Bonap., *Notes Ptérid.* 16: 194. 1925.

**Hemionitis dubia** (Hope) Christenh., *comb. nov.* Basionym: *Cheilanthes dubia* Hope, *J. Bombay Nat. Hist. Soc.* 12: 528. 1899.

**Hemionitis duclouxii** (Christ) Christenh., *comb. nov.* Basionym: *Doryopteris duclouxii* Christ, *Bull. Acad. Int. Géogr. Bot.* 11: 231. 1902.

**Hemionitis dura** (Willd.) Christenh., *comb. nov.* Basionym: *Pteris dura* Willd., *Sp. Pl. ed. quarta*: 376. 1810.

**Hemionitis duthiei** (Baker) Christenh., *comb. nov.* Basionym: *Cheilanthes duthiei* Baker, *Ann. Bot. (Oxford)* 5: 210. 1891.

**Hemionitis eatonii** (Baker) Christenh., *comb. nov.* Basionym: *Cheilanthes eatonii* Baker, *Syn. Fil.* 4: 140. 1867.

**Hemionitis ebenipes** (X.C.Zhang) Christenh., *comb. nov.* Basionym: *Aleuritopteris ebenipes* X.C.Zhang, *Acta Phytotax. Sin.* 32: 94. 1994.

**Hemionitis eckloniana** (Kunze) Christenh., *comb. nov.* Basionym: *Notholaena eckloniana* Kunze, *Linnaea* 10: 501. 1836.

**Hemionitis ehrenbergiana** (Klotzsch) Christenh., *comb. nov.* Basionym: *Gymnogramma ehrenbergiana* Klotzsch, *Linnaea* 20: 411. 1847.

**Hemionitis ekmanii** (Maxon) Christenh., *comb. nov.* Basionym: *Notholaena ekmanii* Maxon, *Amer. Fern J.* 16: 9. 1926.

**Hemionitis emperatricella** Christenh., *nom. nov.* Replaced synonym: *Pteris sagittata* Cav., *Descr. Pl.* 267. 1802, not: *Hemionitis sagittata* Fée. Etymology: Named for the Child-like Empress (Moonchild), ruler of Fantástica in *The Neverending Story* (Ende, 1979).

**Hemionitis engywookii** Christenh., *nom. nov.* Replaced synonym: *Notholaena fendleri* Kunze, *Farrnkr.* 2: 87. 1851. Etymology: Named for Engywook, a gnome-scientist specialised in the Southern Oracle in *The Neverending Story* (Ende, 1979).

**Hemionitis eriophora** (Fée) Christenh., *comb. nov.* Basionym: *Notholaena eriophora* Fée, *Mém. Foug.* 5: 159. 1850.

**Hemionitis erythraea** (Pichi-Serm.) Christenh., *comb. nov.* Basionym: *Cheilanthes erythraea* Pichi-Serm., *Webbia* 27: 420. 1972.

**Hemionitis falkor** Christenh., *nom. nov.* Replaced synonym: *Doryopteris feei* Brade, *Arq. Inst. Biol. Veg. Rio de Janeiro* 1: 226. 1935, not: *Hemionitis feei* (T.Moore) Christenh. Etymology: Named for Falkor (or Fuchur), the Luck Dragon, one of the main characters in *The Neverending Story* (Ende, 1979).

**Hemionitis fantastica** Christenh., *nom. nov.* Replaced synonym: *Notholaena californica* D.C.Eaton, *Bull. Torrey Bot. Club* 10: 27. 1883. Etymology: Named for Fantástica, the mythical land in *The Neverending Story* (Ende, 1979).

**Hemionitis farinosa** (Forssk.) Christenh., *comb. nov.* Basionym: *Pteris farinosa* Forssk., *Fl. Aegypt.-Arab.*: 187. 1775.

**Hemionitis feei** (T.Moore) Christenh., *comb. nov.* Basionym: *Cheilanthes feei* T.Moore, *Index Fil.*: 38. 1857.

**Hemionitis fendleri** (Hook.) Christenh., *comb. nov.* Basionym: *Cheilanthes fendleri* Hook., *Sp. Fil.* 2: 103. 1852.

**Hemionitis flavescens** (Fée) Christenh., *comb. nov.* Basionym: *Pellaea flavescens* Fée, *Crypt. Vasc. Brésil* 1: 44. 1869.

**Hemionitis flexuosa** (Kunze) Christenh., *comb. nov.* Basionym: *Cheilanthes flexuosa* Kunze, *Linnaea* 22: 578. 1849.

- Hemionitis formosa** (Liebm.) Christenh., comb. nov.  
Basionym: *Allosorus formosus* Liebm., Kongel. Dankse Vidensk. Selsk. Skr., Naturvidensk. Math. Afd., ser. 5, 1: 220. 1849. Replaced synonym: *Allosorus pulchellus* M.Martens & Galeotti, Nouv. Mém. Acad. Roy. Sci. Bruxelles 15: 47. 1842, not: *Hemionitis pulchella* (Bory ex Willd.) Christenh.
- Hemionitis formosana** (Hayata) Christenh., comb. nov.  
Basionym: *Cheilanthes formosana* Hayata, Enum. Pl. Form.: 612. 1906.
- Hemionitis fractifera** (R.M.Tryon) Christenh., comb. nov.  
Basionym: *Cheilanthes fractifera* R.M.Tryon, Rhodora 62: 7. 1960.
- Hemionitis fragilis** (Hook.) Christenh., comb. nov.  
Basionym: *Cheilanthes fragilis* Hook., Filic. Exot.: t. 96. 1859.
- Hemionitis fragillima** (F.Muell.) Christenh., comb. nov.  
Basionym: *Cheilanthes fragillima* F.Muell., Phyt. Austr. 5: 126. 1866. Replaced synonym: *Notholaena fragilis* Hook., Sp. Fil. 5: 114. 1864, not: *Hemionitis fragilis* (Hook.) Christenh.
- Hemionitis fraseri** (Mett. ex Kuhn) Christenh., comb. nov.  
Basionym: *Cheilanthes fraseri* Mett. ex Kuhn, Linnaea 36: 83. 1869.
- Hemionitis gaga** Christenh., nom. nov.  
Replaced synonym: *Allosorus chaerophyllum* M.Martens & Galeotti, Nouv. Mém. Acad. Roy. Sci. Bruxelles 15: 47. 1842, not: *Hemionitis chaerophylla* Poir. Etymology: Named for the former genus *Gaga*, now a synonym of *Hemionitis*.
- Hemionitis galapagensis** (Weath. & Svenson) Christenh., comb. nov.  
Basionym: *Notholaena galapagensis* Weath. & Svenson, Bull. Torrey Bot. Club 65: 319. 1938.
- Hemionitis galeottii** (Fée) Christenh., comb. nov.  
Basionym: *Notholaena galeottii* Fée, Mém. Foug. 5: 159. 1852.
- Hemionitis gastonyi** (Windham) Christenh., comb. nov.  
Basionym: *Pellaea gastonyi* Windham, Contr. Univ. Michigan Herb. 19: 36. 1993.
- Hemionitis geraniifolia** (Weath.) Christenh., comb. nov.  
Basionym: *Cheilanthes geraniifolia* Weath., J. Arnold Arbor. 27: 367. 1946.
- Hemionitis germanotta** (Fay W. Li & Windham) Christenh., comb. nov.  
Basionym: *Gaga germanotta* Fay W.Li & Windham, Syst. Bot. 37: 857. 2012.
- Hemionitis glabella** (Mett. ex Kuhn) Christenh., comb. nov.  
Basionym: *Pellaea glabella* Mett. ex Kuhn, Linnaea 36: 87. 1869.
- Hemionitis glaberrima** (Fée) Christenh., comb. nov.  
Basionym: *Cheilanthes glaberrima* Fée, Crypt. Casc. Brésil 1: 54. 1869.

- Hemionitis glanduloviscida** (Schuettp. & Windham) Christenh., comb. nov.  
Basionym: *Pentagramma glanduloviscida* Schuettp. & Windham, Syst. Bot. 40: 639. 2015.
- Hemionitis glauca** (Cav.) Christenh., comb. nov.  
Basionym: *Pteris glauca* Cav., Descr. Pl.: 269. 1802.
- Hemionitis gleichenioides** (Gardner) Christenh., comb. nov.  
Basionym: *Cassebeera gleichenioides* Gardner, Icon. Pl. 6: t. 507. 1843.
- Hemionitis glutinosa** (M.Kessler & A.R.Sm.) Christenh., comb. nov.  
Basionym: *Cheilanthes glutinosa* M.Kessler & A.R.Sm., Brittonia 59: 188. 2007.
- Hemionitis gmorgana** Christenh., nom. nov.  
Replaced synonym: *Cheilanthes rufa* D.Don, Prod. Fl. Nepal.: 16. 1825, not: *Hemionitis rufa* Sw. Etymology: Named for Gmorg a wolf-like servant of The Nothing in *The Neverending Story* (Ende, 1979).
- Hemionitis goabica** Christenh., nom. nov.  
Replaced synonym: *Pteris cordifolia* Baker, J. Bot. 29: 4. 1891, not *Hemionitis cordifolia* (Sessé & Moc.) Christenh., nor *H. cordifolia* Roxb. ex Wall, nom. inval., nom. nud. Etymology: Named for Goab, the Desert of Colours in *The Neverending Story* (Ende, 1979).
- Hemionitis goyazensis** (Taub.) Christenh., comb. nov.  
Basionym: *Notholaena goyazensis* Taub., Bot. Jahrb. Syst. 21: 421. 1896.
- Hemionitis gracillima** (D.C.Eaton) Christenh., comb. nov.  
Basionym: *Cheilanthes gracillima* D.C.Eaton in Emory, Rep. U.S. Mex. Bound. 2: 234. 1859.
- Hemionitis grandis** Christenh., nom. nov.  
Replaced synonym: *Aleuritopteris gigantea* Saiki, J. Phytogeogr. Taxon. 32: 86. 1984, not: *Hemionitis gigantea* Desv. Etymology: Named for its large size.
- Hemionitis graograman** Christenh., nom. nov.  
Replaced synonym: *Cheilanthes pilosa* Goldm., Nov. Act. Acad. Caes. Leop.-Carol. Nat. Cur. 19 (suppl. 1): 455. 1843, not: *Hemionitis pilosa* (Poir.) Christenh. Etymology: Named for Graograman, the Many-Coloured Death in *The Neverending Story* (Ende, 1979).
- Hemionitis grayii** (Davenp.) Christenh., comb. nov.  
Basionym: *Notholaena grayi* Davenp. in D.C.Eaton, Ferns N. Amer. 2: 31. 1879.
- Hemionitis greggii** (Mett. ex Kuhn) Christenh., comb. nov.  
Basionym: *Pellaea greggii* Mett. ex Kuhn, Linnaea 36: 86. 1869.
- Hemionitis grevilleoides** (Christ) Christenh., comb. nov.  
Basionym: *Cheilanthes grevilleoides* Christ. Notul. Syst. (Paris) 1: 51. 1909.
- Hemionitis grisea** (Blanf.) Christenh., comb. nov.  
Basionym: *Cheilanthes grisea* Blanf., J. Simla Natural. Soc. 1: 21. 1886.
- Hemionitis xgryphus** (Mickel) Christenh., comb. nov.  
Basionym: *Cheilanthes xgryphus* Mickel, Amer. Fern J. 77: 112. 1987.

***Hemionitis guanchica* (Bolle) Christenh., comb. nov.** Basionym: *Cheilanthes guanchica* Bolle, Bonplandia 7: 107. 1859.

***Hemionitis gluckuk* Christenh., nom. nov.** Replaced synonym: *Notholaena subcordata* Desv., J. Bot. Agric. 1: 92. 1813, not: *Hemionitis subcordata* (D.C.Eaton & Davenp.) Mickel. Etymology: Named for Gluckuk, a winzling riding a fast snail in *The Neverending Story* (Ende, 1979).

***Hemionitis gymnocarpa* (Ching) Christenh., comb. nov.** Basionym: *Aleuritopteris gymnocarpa* Ching in Y.L.Chang et al., Sporae Pterid. Sin.: 158. 1976. Replaced synonym: *Aleuritopteris doniana* S.K.Wu, nom. illeg. superfl., *Cheilanthes dealbata* D.Don, nom. illeg., not: *Hemionitis dealbata* Willd., nor *Hemionitis doniana* (J.Sm.) Christenh.

***Hemionitis hancockii* (Baker) Christenh., comb. nov.** Basionym: *Cheilanthes hancockii* Baker, Bull. Misc. Inf. Kew 1895(99): 54. 1895.

***Hemionitis harrisi* (Maxon) Christenh., comb. nov.** Basionym: *Cheilanthes harrisi* Maxon, Contr. U.S. Natl. Herb. 24: 51. 1922.

***Hemionitis harrisonae* (Jenm.) Christenh., comb. nov.** Basionym: *Pteris harrisonae* Jenm., Gard. Chron. ser. 3, 24: 414. 1898.

***Hemionitis hassleri* (Weath.) Christenh., comb. nov.** Basionym: *Notholaena hassleri* Weath., Lilloa 6: 274. 1941.

***Hemionitis hickeyi* (Link-Pérez, Seabolt & Ledford) Christenh., comb. nov.** Basionym: *Adiantopsis hickeyi* Link-Pérez, Seabolt & Ledford, Syst. Bot. 41: 915. 2016.

***Hemionitis hieronymi* (Herter) Christenh., comb. nov.** Basionym: *Cheilanthes hieronymi* Herter, Anal. Mus. Hist. Nat. Montevideo 1: 360. 1925.

***Hemionitis himalaica* (Fraser-Jenk.) Christenh., comb. nov.** Basionym: *Notholaena himalaica* Fraser-Jenk., New Sp. Syndr. Indian Pteridol. & Ferns Nepal: 183. 1997. Replaced synonym: *Gymnogramma vestita* Hook., not: *Hemionitis vestita* (Desv.) Christenh. (Figure 3C)

***Hemionitis hintoniorum* (Mendenh. & G.L.Nesom) Christenh., comb. nov.** Basionym: *Cheilanthes hintoniorum* Mendenh. & G.L.Nesom, Sida 14: 551. 1991.

***Hemionitis hirsuta* (Link) Christenh., comb. nov.** Basionym: *Cheilanthes hirsuta* Link, Hort. Berol. 2: 40. 1833.

***Hemionitis hirta* (Sw.) Christenh., comb. nov.** Basionym: *Cheilanthes hirta* Sw., Syn. Filic.: 128, 329. 1806.

***Hemionitis hispanica* (Mett.) Christenh., comb. nov.** Basionym: *Cheilanthes hispanica* Mett., Abh. Senckenberg. Naturf. Ges. 3: 74. 1859.

***Hemionitis hispida* (Mett. ex Kuhn) Christenh., comb. nov.** Basionym: *Gymnogramma hispida* Mett. ex Kuhn, Linnaea 36: 72. 1869. (Figure 3D)

***Hemionitis hookeri* (E.J.Lowe) Christenh., comb. nov.** Basionym: *Notholaena hookeri* E.J.Lowe, Ferns 1: 59. 1856. Replaced synonym: *Notholaena standleyi* Maxon, Amer. Fern J. 5: 1. 1915.

***Hemionitis hopeana* (C.Chr.) Christenh., comb. nov.** Basionym: *Cheilanthes hopeana* C.Chr., Ind. Filic., Suppl. 1: 18. 1913. Replaced synonym: *Pellaea squamosa* C.Hope & C.H.Wright, not: *Hemionitis squamosa* (Gillies ex Hook. & Grev.) Christenh.

***Hemionitis horokana* Christenh., nom. nov.** Replaced synonym: *Pellaea intermedia* Mett. ex Kuhn, Linnaea 38: 84. 1869, not: *Hemionitis intermedia* Fée. Etymology: Named for Horok Castle, the Allseeing Hand in *The Neverending Story* (Ende, 1979).

***Hemionitis horridula* (Maxon) Christenh., comb. nov.** Basionym: *Cheilanthes horridula* Maxon, Amer. Fern J. 8: 94. 1918.

***Hemionitis humatoides* (Saiki) Christenh., comb. nov.** Basionym: *Aleuritopteris humatoides* Saiki, J. Phytogeogr. Taxon. 32: 5. 1984.

***Hemionitis humbertii* (Tardieu) Christenh., comb. nov.** Basionym: *Doryopteris humbertii* Tardieu, Fl. Madagasc. 5(1): 144. 1958.

***Hemionitis ×hybrida* (Brade & Rosenst.) Christenh., comb. nov.** Basionym: *Doryopteris ×hybrida* Brade & Rosenst., Repert. Sp. Nov. Regni Veg. 21: 346. 1925.

***Hemionitis hydornii* Christenh., nom. nov.** Replaced synonym: *Pellaea tomentosa* Bonap., Notes Ptérid. 5: 64. 1917, not: *Hemionitis tomentosa* Raddi. Etymology: Named for one of the four heroes in *The Neverending Story* (Ende, 1979).

***Hemionitis hykrionii* Christenh., nom. nov.** Replaced synonym: *Pellaea prolifera* Schelpe, Bull. Jard. Bot. Natl. Belg. 38: 193. 1968, not: *Hemionitis prolifera* Retz. Etymology: Named for one of the four heroes in *The Neverending Story* (Ende, 1979).

***Hemionitis hynreckii* Christenh., nom. nov.** Replaced synonym: *Gymnogramma muelleri* Hook., Sp. Filic. 5: 143. 1864, not: *Hemionitis muelleri* J.Sm. Etymology: Named for one of the four heroes in *The Neverending Story* (Ende, 1979).

***Hemionitis hypoleuca* (Kunze) Christenh., comb. nov.** Basionym: *Notholaena hypoleuca* Kunze, Linnaea 9: 54. 1834.

***Hemionitis hysbalddii* Christenh., nom. nov.** Replaced synonym: *Pellaea pringlei* Davenp., Gard. and Forest 4: 555. 1891, not: *Hemionitis pringlei* (Davenp.) Christenh. Etymology: Named for one of the four heroes in *The Neverending Story* (Ende, 1979).

***Hemionitis ilwan* Christenh., nom. nov.** Replaced

synonym: *Saffordia induta* Maxon, *Rhodora* 83: 137. 1981, not: *Hemionitis induta* (Kunze) Christenh.  
Etymology: Named for Ilwan, a blue genie in *The Neverending Story* (Ende, 1979).

***Hemionitis inaequalis* (Kunze) Christenh., comb. nov.**  
Basionym: *Notholaena inaequalis* Kunze, *Farrnkr.* 1: 146. 1844.

***Hemionitis incana* (C.Presl) Christenh., comb. nov.**  
Basionym: *Notholaena incana* C.Presl, *Reliq. Haenk.* 1: 19. 1825.

***Hemionitis incurum* (Maxon) Christenh., comb. nov.**  
Basionym: *Cheilanthes incurum* Maxon, *Smithsonian Misc. Coll.* 65(8): 5. 1915.

***Hemionitis induta* (Kunze) Christenh., comb. nov.**  
Basionym: *Cheilanthes induta* Kunze, *Linnaea* 10: 538. 1836.

***Hemionitis insignis* (Ching) Christenh., comb. nov.**  
Basionym: *Cheilanthes insignis* Ching, *Fl. Tsinling.* 2: 208. 1974.

***Hemionitis integerrima* (Hook.) Christenh., comb. & stat. nov.** Basionym: *Notholaena sinuata* (Lag. ex Sw.) Kaulf. var. *integerrima* Hook., *Sp. Filic.* 5: 108. 1864.

***Hemionitis intertexta* (Maxon) Christenh., comb. nov.** Basionym: *Cheilanthes colvillei* Maxon subsp. *intertexta* Maxon, *Proc. Biol. Soc. Washington* 31: 149. 1918.

***Hemionitis intramarginalis* (Kaulf. ex Link) Christenh., comb. nov.** Basionym: *Pteris intramarginalis* Kaulf. ex Link, *Hort. Berol.* 2: 34. 1833.

***Hemionitis itatiaiensis* (Fée) Christenh., comb. nov.**  
Basionym: *Pellaea itatiaiensis* Fée, *Crypt. Vasc. Brésil* 2: 26. 1872.

***Hemionitis jacalensis* (Pray) Christenh., comb. nov.**  
Basionym: *Notholaena jacalensis* Pray, *Amer. Fern J.* 57: 101. 1967.

***Hemionitis jaliscana* (Yatsk. & Arbeláez) Christenh., comb. nov.** Basionym: *Notholaena jaliscana* Yatsk. & Arbeláez, *Novon* 18: 121. 2008. Replaced synonym: *Cheilanthes palmeri* D.C.Eaton, *Proc. Amer. Acad Arts & Sci.* 22: 464. 1887, not *Hemionitis palmeri* (Baker) Christenh.

***Hemionitis jamaicensis* (Maxon) Christenh., comb. nov.** Basionym: *Cheilanthes jamaicensis* Maxon, *Contr. U.S. Nat. Herb.* 24: 51. 1922.

***Hemionitis jequitinhonhensis* (Salino) Christenh., comb. nov.** Basionym: *Doryopteris jequitinhonhensis* Salino, *J. Bot. Res. Inst. Texas* 2: 843. 2008.

***Hemionitis jonesii* (Maxon) Christenh., comb. nov.**  
Basionym: *Notholaena jonesii* Maxon, *Amer. Fern J.* 7: 108. 1917.

***Hemionitis kaulfussii* (Kunze) Christenh., comb. nov.**  
Basionym: *Cheilanthes kaulfussii* Kunze, *Linnaea* 13: 145. 1839.

***Hemionitis keralensis* (N.C.Nair & S.R.Ghosh) Christenh., comb. nov.** Basionym: *Cheilanthes keralensis* N.C.Nair & S.R.Ghosh, *J. Indian Bot. Soc.* 55: 52. 1976.

***Hemionitis kitchingii* (Baker) Christenh., comb. nov.**  
Basionym: *Pellaea kitchingii* Baker, *J. Bot.* 18: 327. 1880.

***Hemionitis kramerii* (Franch. & Sav.) Christenh., comb. nov.** Basionym: *Cheilanthes kramerii* Franch. & Sav., *Enum. Pl. Jap.* 2: 212, 619. 1879.

***Hemionitis kuhnii* (Milde) Christenh., comb. nov.**  
Basionym: *Cheilanthes kuhnii* Milde, *Bot. Zeitung (Berlin)* 25: 149. 1867.

***Hemionitis kunzei* (Mett.) Christenh., comb. nov.**  
Basionym: *Cheilanthes kunzei* Mett., *Abh. Senckenberg. Naturf. Gesell.* 3: 71. 1859.

***Hemionitis laciniata* (Sodiro) Christenh., comb. nov.**  
Basionym: *Cheilanthes laciniata* Sodiro, *Anal. Univ. Centr. Ecuador* 7: 189. 1892.

***Hemionitis lanosa* (Michx.) Christenh., comb. nov.**  
Basionym: *Nephrodium lanosum* Michx., *Fl. Bor.-Amer.* 2: 270. 1803.

***Hemionitis lanuginosa* (Desv. ex Poir.) Christenh., comb. nov.** Basionym: *Notholaena lanuginosa* Desv. ex Poir. in Lam., *Encycl. Meth. Bot. Suppl.* 4: 110. 1816.

***Hemionitis latiloba* (C.Chr.) Christenh., comb. nov.**  
Basionym: *Doryopteris latiloba* C.Chr., *Arch. Bot. (Caen)* 2, *Bull. Mens.*: 213. 1928.

***Hemionitis leachii* (Schelpe) Christenh., comb. nov.**  
Basionym: *Notholaena leachii* Schelpe, *J. S. Afr. Bot.* 30: 185, f. la (1964)

***Hemionitis lemmonii* (D.C.Eaton) Christenh., comb. nov.** Basionym: *Notholaena lemmonii* D.C.Eaton, *Bull. Torrey Bot. Club* 7: 63. 1880.

***Hemionitis lendigera* (Cav.) Christenh., comb. nov.**  
Basionym: *Pteris lendigera* Cav., *Descr. Pl.*: 268. 1802.

***Hemionitis leonardii* (Maxon) Christenh., comb. nov.** Basionym: *Cheilanthes leonardii* Maxon, *J. Washington Acad. Sci.* 14: 87. 1924.

***Hemionitis leonina* (Maxon) Christenh., comb. nov.**  
Basionym: *Notholaena leonina* Maxon, *Contr. U.S. Natl. Herb.* 16: 58. 1912.

***Hemionitis leptolepis* (Fraser-Jenk.) Christenh., comb. nov.** Basionym: *Cheilanthes leptolepis* Fraser-Jenk., *Bot. Helv.* 102: 144. 1992.

***Hemionitis lerstenii* (Mickel & Beitel) Christenh., comb. nov.** Basionym: *Cheilanthes lerstenii* Mickel & Beitel, *Mem. New York Bot. Gard.* 46: 117. 1988.

***Hemionitis leucopoda* (Link) Christenh., comb. nov.**  
Basionym: *Cheilanthes leucopoda* Link, *Filic. Sp.*: 66. 1841.

- Hemionitis likiangensis** (Ching) Christenh., comb. nov.  
Basionym: *Aleuritopteris likiangensis* Ching, Acta Phytotax. Sin. 19: 64. 1981.
- Hemionitis limitanea** (Maxon) Christenh., comb. nov.  
Basionym: *Notholaena limitanea* Maxon, Amer. Fern J. 9: 70. 1919.
- Hemionitis lindheimeri** (Hook.) Christenh., comb. nov.  
Basionym: *Cheilanthes lindheimeri* Hook., Sp. Filic. 2: 101. 1852.
- Hemionitis lindigii** (Mett.) Christenh., comb. nov.  
Basionym: *Cheilanthes lindigii* Mett., Ann. Sci. Nat., Bot., sér 5, 2: 218. 1864.
- Hemionitis linearis** (Bonap.) Christenh., comb. nov.  
Basionym: *Adiantopsis linearis* Bonap., Notes Ptérid. 10: 185. 1920.
- Hemionitis lomariacea** (Klotzsch) Christenh., comb. nov.  
Basionym: *Doryopteris lomariacea* Klotzsch, Linnaea 20: 343. 1847.
- Hemionitis lonchophora** (Römer ex Mett.) Christenh., comb. nov.  
Basionym: *Pteris lonchophora* Römer ex Mett., Abh. Senckenberg. Naturf. Gesell. 3: 48. 1859.
- Hemionitis lonchophylla** (R.M.Tryon) Christenh., comb. nov.  
Basionym: *Notholaena lonchophylla* R.M.Tryon, Contr. Gray Herb. 179: 19. 1956.
- Hemionitis longipila** (Baker) Christenh., comb. nov.  
Basionym: *Cheilanthes longipila* Baker, Ann. Bot. (Oxford) 5: 211. 1891.
- Hemionitis longipilosa** (Bonap.) Christenh., comb. nov.  
Basionym: *Pellaea longipilosa* Bonap., Notes Ptérid. 16: 33. 1924.
- Hemionitis lorentzii** (Hieron.) Christenh., comb. nov.  
Basionym: *Pellaea lorentzii* Hieron., Bot. Jahrb. Syst. 22: 392. 1896.
- Hemionitis lozanoi** (Maxon) Christenh., comb. nov.  
Basionym: *Pellaea lozanoi* Maxon, Contr. U.S. Natl. Herb. 10: 500. 1908, as 'lozani'.
- Hemionitis ludens** (Wall. ex Hook.) Christenh., comb. nov.  
Basionym: *Pteris ludens* Wall. ex Hook., Sp. Filic. 2: 210. 1858.
- Hemionitis luetzelburgii** (Rosenst.) Christenh., comb. nov.  
Basionym: *Adiantopsis luetzelburgii* Rosenst., Repert. Sp. Nov. Regni Veg. 20: 91. 1924.
- Hemionitis lumholtzii** (Maxon & Weath.) Christenh., comb. nov.  
Basionym: *Notholaena lumholtzii* Maxon & Weath., Contr. Gray Herb. 127: 16. 1939.
- Hemionitis lutea** (Cav.) Christenh., comb. nov.  
Basionym: *Pteris lutea* Cav., Descr. Pl.: 267. 1802.
- Hemionitis lyngholmii** (Windham) Christenh., comb. nov.  
Basionym: *Pellaea lyngholmii* Windham, Contr. Univ. Michigan Herb. 19: 40. 1993.
- Hemionitis madagascariensis** (Baker) Christenh., comb. nov.  
Basionym: *Cheilanthes madagascariensis* Baker, J. Linn. Soc., Bot. 16: 198. 1877.
- Hemionitis maderensis** (Lowe) Christenh., comb. nov.  
Basionym: *Cheilanthes maderensis* Lowe, Trans. Cambridge Philos. Soc. 6: 528. 1838.
- Hemionitis magdalensis** (Brade) Christenh., comb. & stat. nov.  
Basionym: *Doryopteris subsimplex* var. *magdalensis* Brade., Arq. Inst. Biol. Veg. 2: 3. 1935.
- Hemionitis mairei** (Brause) Christenh., comb. nov.  
Basionym: *Pellaea mairei* Brause, Hedwigia 54: 201. 1914.
- Hemionitis majestosa** (Yesilyurt) Christenh., comb. nov.  
Basionym: *Doryopteris majestosa* Yesilyurt, Amer. Fern J. 97: 212. 2008.
- Hemionitis malabarica** (Madhus. & Jyothi ex Geev.) Christenh., comb. nov.  
Basionym: *Pellaea malabarica* Madhus. & Jyothi ex Geev., Indian Fern J. 9: 39. 1992.
- Hemionitis marantae** (L.) Christenh., comb. nov.  
Basionym: *Acrostichum marantae* L., Sp. Pl. 2: 1071. 1753.
- Hemionitis marginata** (Kunth) Christenh., comb. nov.  
Basionym: *Cheilanthes marginata* Kunth, Nov. Gen. Sp. (quarto ed.) 1: 22. 1815.
- Hemionitis marlothii** (Hieron.) Christenh., comb. nov.  
Basionym: *Notholaena marlothii* Hieron., Bot. Jahrb. Syst. 46: 384. 1911.
- Hemionitis marsupianthes** (Fée) Christenh., comb. nov.  
Basionym: *Myriopteris marsupianthes* Fée, Mém. Foug. 5: 149. 1852.
- Hemionitis maxoniana** (Mickel) Christenh., comb. nov.  
Basionym: *Cheilanthes maxoniana* Mickel, Mem. New York Bot. Gard. 88: 201. 2004.
- Hemionitis meifolia** (D.C.Eaton) Christenh., comb. nov.  
Basionym: *Cheilanthes meifolia* D.C.Eaton, Proc. Amer. Acad. Arts & Sci. 18: 185. 1883.
- Hemionitis membranacea** (Davenp.) Christenh., comb. nov.  
Basionym: *Pellaea membranacea* Davenp., Bot. Gaz. 21: 262. 1896.
- Hemionitis mexicana** (Davenp.) Christenh., comb. nov.  
Basionym: *Cheilanthes mexicana* Davenp., Bull. Torrey Bot. Cl. 15: 227. 1888.
- Hemionitis michelii** (Christ) Christenh., comb. nov.  
Basionym: *Doryopteris michelii* Christ, Bull. Acad. Int. Géogr. Bot. 20: 14. 1910.
- Hemionitis mickelii** (T.Reeves) Christenh., comb. nov.  
Basionym: *Cheilanthes mickelii* T.Reeves, Brittonia 32: 502. 1980.
- Hemionitis microphylla** (Sw.) Christenh., comb. nov.  
Basionym: *Adiantum microphyllum* Sw., Prodr.: 135. 1788.
- Hemionitis micropteris** (Sw.) Christenh., comb. nov.  
Basionym: *Cheilanthes micropteris* Sw., Syn. Filic.: 126. 1806.

- Hemionitis minutula (Sehnem) Christenh., comb. nov.**  
Basionym: *Adiantopsis minutula* Sehnem, Fl. Illustr. Catar. 1 (Pteridac.): 73. 1972.
- Hemionitis mollis (Kunze) Christenh., comb. nov.**  
Basionym: *Notholaena mollis* Kunze, Linnaea 9: 54. 1834.
- Hemionitis monocloviensis (Baker) Christenh., comb. nov.**  
Basionym: *Cheilanthes monocloviensis* Baker, Ann. Bot. (Oxford) 5: 210. 1891.
- Hemionitis monstraparva (Fay W.Li & Windham) Christenh., comb. nov.** Basionym: *Gaga monstraparva* Fay W.Li & Windham, Syst. Bot. 37: 858. 2012.
- Hemionitis monticola (Gardner) Christenh., comb. nov.** Basionym: *Cheilanthes monticola* Gardner, Icon. Pl. 5: t. 487. 1842.
- Hemionitis moritziana (Kunze) Christenh., comb. nov.** Basionym: *Cheilanthes moritziana* Kunze, Linnaea 23: 307. 1850.
- Hemionitis morla Christenh., nom. nov.** Replaced synonym: *Cheilanthes coriacea* Decne., Arch. Mus. Hist. Nat. 2: 190. 1841, not: *Hemionitis coriacea* D.Don. Etymology: Named for the Ancient Morla, a giant terrapin in *The Neverending Story* (Ende, 1979)
- Hemionitis mucronata (D.C.Eaton) Christenh., comb. nov.** Basionym: *Allosorus mucronatus* D.C.Eaton, Amer. J. Sci & Arts, ser. 2, 22: 138. 1856.
- Hemionitis multifida (Sw.) Christenh., comb. nov.** Basionym: *Adiantum multifidum* Sw., J. Bot. (Schrader) 1800(2): 85. 1801.
- Hemionitis multipartita (Fée) Christenh., comb. & stat. nov.** Basionym: *Doryopteris raddiana* (C.Presl) Fée var. *multipartita* Fée, Crypt. Vasc. Brésil 1: 45. 1869.
- Hemionitis myriophylla (Desv.) Christenh., comb. nov.** Basionym: *Cheilanthes myriophylla* Desv., Mag. Neuesten Entdeck. Gesammten Naturk., Gesell. Naturf. Freunde Berlin 5. 328. 1811.
- Hemionitis myrtillifolia (Mett. ex Kuhn) Christenh., comb. nov.** Basionym: *Pellaea myrtillifolia* Mett. ex Kuhn, Linnaea 36: 85. 1869.
- Hemionitis namaquensis (Baker) Christenh., comb. nov.** Basionym: *Pellaea namaquensis* Baker, J. Bot. 12: 199. 1874.
- Hemionitis nana (Hook.) Christenh., comb. & stat. nov.** Basionym: *Pellaea falcata* Fée var. *nana* Hook., Sp. Filic. 2: 136. 1858.
- Hemionitis nealleyi (Seaton ex J.M.Coult.) Christenh., comb. nov.** Basionym: *Notholaena nealleyi* Seaton ex J.M.Coult., Contr. U.S. Natl. Herb. 1: 61. 1890.
- Hemionitis neglecta (Maxon) Christenh., comb. nov.** Basionym: *Notholaena neglecta* Maxon, Contr. U.S. Natl. Herb. 17: 602. 1916.
- Hemionitis newberryi (D.C.Eaton) Christenh., comb. nov.** Basionym: *Notholaena newberryi* D.C.Eaton,
- Bull. Torrey Bot. Club* 4: 12. 1873.
- Hemionitis nielsii (W.Jacobsen) Christenh., comb. nov.** Basionym: *Cheilanthes nielsii* W.Jacobsen, Ferns & Fern Allies S. Africa: 252. 1983.
- Hemionitis nigricans (Willd.) Christenh., comb. nov.** Basionym: *Pteris nigricans* Willd., Sp. Pl., ed. 4, 5: 396. 1810.
- Hemionitis niphobola (C.Chr.) Christenh., comb. nov.** Basionym: *Cheilanthes niphobola* C.Chr., Acta Horti Gothob. 1: 88. 1924.
- Hemionitis nitida (R.Br.) Christenh., comb. nov.** Basionym: *Pteris nitida* R.Br., Prodr. Fl. Nov. Holland.: 155. 1810.
- Hemionitis nitidula (Hook.) Christenh., comb. nov.** Basionym: *Cheilanthes nitidula* Hook., Sp. Filic. 2: 112. 1852.
- Hemionitis nivea (Poir.) Christenh., comb. nov.** Basionym: *Pteris nivea* Poir. in Lam. Encycl. Méth., Bot. 5: 718. 1804.
- Hemionitis nobilis (T.Moore) Christenh., comb. nov.** Basionym: *Litobrochia nobilis* T.Moore, Gard. Chron. 1862(40): 932. 1862.
- Hemionitis notabilis (Maxon) Christenh., comb. nov.** Basionym: *Pellaea notabilis* Maxon, Contr. U.S. Natl. Herb. 10: 500. 1908.
- Hemionitis notholaenoides (Desv.) Christenh., comb. nov.** Basionym: *Pteris notholaenoides* Desv., Mém. Soc. Linn. Paris 6: 299. 1827.
- Hemionitis nuda (Ching) Christenh., comb. nov.** Basionym: *Aleruitopteris nuda* Ching, Fl. Tsinling. 2: 207. 1974.
- Hemionitis nudiuscula (R.Br.) Christenh., comb. nov.** Basionym: *Pteris nudiuscula* R.Br., Prodr. Fl. Nov. Holland.: 155. 1810.
- Hemionitis obducta (Mett. ex Kuhn) Christenh., comb. nov.** Basionym: *Cheilanthes obducta* Mett. ex Kuhn, Linnaea 36: 83. 1869.
- Hemionitis occulta (Sehnem) Christenh., comb. nov.** Basionym: *Adiantopsis occulta* Sehnem, Pesquisas, Bot. 3: 508. 1959.
- Hemionitis opposita (Kaulf.) Christenh., comb. nov.** Basionym: *Cheilanthes opposita* Kaulf., Enum. Filic.: 211. 1824.
- Hemionitis orbigniana (Mett. ex Kuhn) Christenh., comb. nov.** Basionym: *Cheilanthes orbigniana* Mett. ex Kuhn, Linnaea 36: 82. 1869.
- Hemionitis ornithopus (Mett.) Christenh., comb. nov.** Basionym: *Pteris ornithopus* Mett., Syn. Filic.: 166. 1867.
- Hemionitis ovata (Desv.) Christenh., comb. nov.** Basionym: *Pteris ovata* Desv., Mém. Soc. Linn. Paris 6: 301. 1827.

- Hemionitis pallens** (Weath.) Christenh., *comb. nov.*  
Basionym: *Notholaena pallens* Weath., *Contr. Gray Herb.* 179: 78. 1956.
- Hemionitis pallida** (Baker) Christenh., *comb. nov.*  
Basionym: *Pellaea pallida* Baker, *Syn. Filic.* (ed. 2) 2: 478. 1874.
- Hemionitis palmeri** (Baker) Christenh., *comb. nov.*  
Basionym: *Notholaena palmeri* Baker, *Hooker's Icon. Pl.* 17: t. 1678. 1887.
- Hemionitis pantanalensis** (E.L.M.Assis, Ponce & Labiak) Christenh., *comb. nov.* *Cheilanthes pantanalensis* E.L.M.Assis, Ponce & Labiak, *Amer. Fern J.* 98: 203. 2009.
- Hemionitis papuana** (C.Chr.) Christenh., *comb. nov.*  
Basionym: *Cheilanthes papuana* C.Chr., *Dansk Bot. Ark.* 9: 57. 1937.
- Hemionitis paradoxa** (R.Br.) Christenh., *comb. nov.*  
Basionym: *Adiantum paradoxum* R.Br., *Prodri. Fl. Nov. Holland.* 1: 155. 1810.
- Hemionitis parryi** (D.C.Eaton) Christenh., *comb. nov.*  
Basionym: *Notholaena parryi* D.C.Eaton, *Amer. Naturalist* 9: 351. 1875.
- Hemionitis parviloba** (Sw.) Christenh., *comb. nov.*  
Basionym: *Adiantum parvilobum* Sw., *J. Bot. (Schrader)* 1800(2): 85. 1801.
- Hemionitis parvisegmata** (M.S.Barker & Hickey) Christenh., *comb. nov.* Basionym: *Adiantopsis parvisegmata* M.S.Barker & Hickey, *Ann. Missouri Bot. Gard.* 93: 388. 2006.
- Hemionitis patula** (Baker) Christenh., *comb. nov.*  
Basionym: *Cheilanthes patula* Baker, *J. Bot.* 26: 225. 1888.
- Hemionitis paupercula** (Kunze) Christenh., *comb. nov.*  
Basionym: *Adiantum pauperculum* Kunze, *Farrnkr.* 2: 65. 1850.
- Hemionitis pectiniformis** (Baker) Christenh., *comb. nov.* Basionym: *Pellaea pectiniformis* Baker, *Syn. Filic.* (ed. 2): 147. 1874.
- Hemionitis pedatoidea** (Desv.) Christenh., *comb. nov.*  
Basionym: *Pteris pedatoidea* Desv., *Mém. Soc. Linn. Paris* 6: 293. 1827.
- Hemionitis pellaea** Christenh., *nom. nov.* Replaced synonym: *Pteris falcata* R.Br., *Prod. Fl. Nov. Holland.*: 154. 1810, not: *Hemionitis falcata* Willd., nor: *Pteris falcata* Sodiro, *nom. illeg.* Etymology: Named for the former genus *Pellaea*, now included in *Hemionitis*.
- Hemionitis pellaeopsis** (Mickel) Christenh., *comb. nov.* Basionym: *Cheilanthes pellaeopsis* Mickel in McVaugh, *Fl. Novo-Galiciano* 17: 241. 1992.
- Hemionitis peninsularis** (Maxon) Christenh., *comb. nov.* Basionym: *Cheilanthes peninsularis* Maxon, *Contr. U.S. Natl. Herb.* 10: 496. 1908.
- Hemionitis perelinae** Christenh., *nom. nov.* Replaced synonym: *Doryopteris rufa* Brade, *Bol. Mus. Nac. Rio de Janeiro, Bot.* 6: 94. 1929, not: *Hemionitis rufa* Sw. Etymology: Perelin, the Night Forest in *The Neverending Story* (Ende, 1979).
- Hemionitis perfasciculata** (Sehnem) Christenh., *comb. nov.* Basionym: *Adiantopsis perfasciculata* Sehnem, *Pesquisas, Bot.* 13: 21. 1961.
- Hemionitis perlanata** (Pic.Serm.) Christenh., *comb. nov.* Basionym: *Notholaena perlanata* Pic.-Serm., *Webbia* 27: 417. 1972.
- Hemionitis perrieri** (J.P.Roux) Christenh., *comb. nov.*  
Basionym: *Cheilanthes perrieri* J.P.Roux, *Bothalia* 40: 81. 2010. Replaced synonym: *Notholaena lanceolata* Bonap., *Notes Ptérid.* 5: 65. 1917, not: *Hemionitis lanceolata* L.
- Hemionitis persica** (Bory) Christenh., *comb. nov.*  
Basionym: *Notholaena persica* Bory, *Voy. Indes Orient.*: 23. 1833.
- Hemionitis peruviana** (Desv.) Christenh., *comb. nov.*  
Basionym: *Notholaena peruviana* Desv., *Mém. Soc. Linn. Paris* 6: 220. 1827.
- Hemionitis pilifera** (R.M.Tryon) Christenh., *comb. nov.*  
Basionym: *Notholaena pilifera* R.M.Tryon, *Contr. Gray Herb.* 179: 79. 1956.
- Hemionitis pilosa** (Poir.) Christenh., *comb. nov.*  
Basionym: *Pteris pilosa* Poir. in Lam., *Encycl. Méth., Bot.* 5: 717. 1804.
- Hemionitis platychlamys** (Ching) Christenh., *comb. nov.* Basionym: *Aleuritopteris platychlamys* Ching, *Fl. Tsinling.* 2: 207. 1974, as 'platychalamys'.
- Hemionitis poeppigiana** (Mett. ex Kuhn) Christenh., *comb. nov.* Basionym: *Cheilanthes poeppigiana* Mett. ex Kuhn, *Linnæa* 36: 84. 1869.
- Hemionitis pohliana** (Mett.) Christenh., *comb. nov.* Basionym: *Cheilanthes pohliana* Mett., *Abh. Senckenberg. Naturf. Gesell.* 3: 67. 1859.
- Hemionitis praetermissa** (D.L.Jones) Christenh., *comb. nov.* Basionym: *Cheilanthes praetermissa* D.L.Jones, *Austrobaileya* 2: 472. 1988.
- Hemionitis prenticei** (Luerss.) Christenh., *comb. nov.* Basionym: *Cheilanthes prenticei* Luerss., *Bot. Centralbl.* 3: 442. 1882.
- Hemionitis pringlei** (Davenp.) Christenh., *comb. nov.*  
Basionym: *Cheilanthes pringlei* Davenp., *Bull. Torrey Bot. Club* 10: 61. 1883.
- Hemionitis pruinata** (Kaulf.) Christenh., *comb. nov.*  
Basionym: *Cheilanthes pruinata* Kaulf., *Enum. Filic.* 210. 1824.
- Hemionitis pteridiooides** (Reichard) Christenh., *comb. nov.* Basionym: *Polypodium pteridiooides* Reichard, *Syst. Pl.* 4: 424. 1780.
- Hemionitis pteroides** (L.) Christenh., *comb. nov.*  
Basionym: *Adiantum pteroides* L., *Mant. Pl.*: 130. 1767.

**Hemionitis pulchella** (Bory ex Willd.) Christenh., *comb. nov.* Basionym: *Cheilanthes pulchella* Bory ex Willd., *Sp. Pl. (ed. quarta)* 5: 456. 1810, not: *Allosorus pulchellus* M.Martens & Galeotti

**Hemionitis pumilio** (R.Br.) Christenh., *comb. nov.* Basionym: *Notholaena pumilio* R.Br., *Prod. Fl. Nov. Holland.*: 146. 1810.

**Hemionitis purpusii** (T.Reeves) Christenh., *comb. nov.* Basionym: *Cheilanthes purpusii* T.Reeves, *Rhodora* 84: 293. 1982.

**Hemionitis pygmaea** (Ching) Christenh., *comb. nov.* Basionym: *Aleuritopteris pygmaea* Ching, *Acta Phytotax. Sin.* 19: 61. 1981.

**Hemionitis pyornkrachzarkii** Christenh., *nom. nov.* Replaced synonym: *Pellaea microphylla* Fée, *Crypt. Vasc. Brésil* 1: 43. 1869, not: *Hemionitis microphylla* (Sw.) Christenh. Etymology: Named for the 'rock biter' Pyornkrachzark, a character in *The Neverending Story* (Ende, 1979).

**Hemionitis qianguiensis** (W.M.Chu & H.G.Zhou) Christenh., *comb. nov.* Basionym: *Cheilanthes qianguiensis* W.M.Chu & H.G.Zhou, *Guizhaia* 12: 321. 1992.

**Hemionitis quadripinnata** (Forssk.) Christenh., *comb. nov.* Basionym: *Pteris quadripinnata* Forssk., *Fl. Aegypt.-Arab.*: 186. 1775.

**Hemionitis querquobadii** Christenh., *nom. nov.* Replaced synonym: *Doryopteris pentagona* Pic. Serm., *Webbia* 60: 231. 2005, not: *Hemionitis pentagona* (Schelpe & N.C.Anthony) Christenh. Etymology: Named for Querquobad, the Silver Sage, ruler of Amarganth in *The Neverending Story* (Ende, 1979). (Figure 3E)

**Hemionitis quezelii** (Tardieu) Christenh., *comb. nov.* Basionym: *Negripteris quezelii* Tardieu in Quézel, *Mission Bot. Tibesti* 92: t. 1(1–5). 1958.

**Hemionitis quinquelobata** (Fée) Christenh., *comb. nov.* Basionym: *Pellaea quinquelobata* Fée, *Crypt. Vasc. Brésil* 1: 42. 1869.

**Hemionitis raddiana** (C.Presl) Christenh., *comb. nov.* Basionym: *Litobrochia raddiana* C.Presl, *Tent. Pterid.*: 149. 1836.

**Hemionitis radiata** (L.) Christenh., *comb. nov.* Basionym: *Adiantum radiatum* L., *Sp. Pl.* 2: 1094. 1753.

**Hemionitis rawsonii** (Pappe) Christenh., *comb. nov.* Basionym: *Notholaena rawsonii* Pappe in Pappe & Rawson, *Syn. Fil. Afr. Austr.*: 42. 1858.

**Hemionitis recurvata** (Baker) Christenh., *comb. nov.* Basionym: *Cheilanthes recurvata* Baker, *J. Bot.* 16: 299. 1878.

**Hemionitis rediviva** (Fée) Christenh., *comb. nov.* Basionym: *Doryopteris rediviva* Fée, *Crypt. Vasc. Brésil* 2: 30. 1872.

**Hemionitis reesii** (Jenman) Christenh., *comb. nov.* Basionym: *Cheilanthes reesii* Jenman, *J. Bot.* 24: 267. 1886.

**Hemionitis regnelliana** (Mett.) Christenh., *comb. nov.* Basionym: *Cheilanthes regnelliana* Mett. in Mart. *Fl. Bras.* 1(2): 39. 1870. Replaced synonym: *Cheilanthes flexuosa* Baker, *Syn. Filic.*: 138. 1867, not: *Hemionitis flexuosa* (Kunze) Christenh.

**Hemionitis regularis** (Kunze) Christenh., *comb. nov.* Basionym: *Adiantum regulare* Kunze, *Farrnkr.* 2: 67. 1850.

**Hemionitis reynoldsi** (F.Muell) Christenh., *comb. nov.* Basionym: *Notholaena reynoldsi* F.Muell., *Fragm. Phytopogr. Austr.* 8: 175. 1874.

**Hemionitis riedelii** (Baker) Christenh., *comb. nov.* Basionym: *Pellaea riedelii* Baker, *Ann. Bot. (Oxford)* 6: 213. 1891.

**Hemionitis rivalis** (Sehnem) Christenh., *comb. nov.* Basionym: *Doryopteris rivalis* Sehnem, *Pesquisas, Bot.* 13: 25. 1961.

**Hemionitis robusta** (Kuntze) Christenh., *comb. nov.* Basionym: *Allosorus robustus* Kuntze, *Linnaea* 10: 502. 1836.

**Hemionitis rosei** (Maxon) Christenh., *comb. nov.* Basionym: *Notholaena rosei* Maxon, *Contr. U.S. Natl. Herb.* 16: 59. 1912.

**Hemionitis rosenstockii** (Brade) Christenh., *comb. nov.* Basionym: *Doryopteris rosenstockii* Brade, *Bol. Mus. Nac. Rio de Janeiro* 7: 143. 1931.

**Hemionitis rosulata** (C.Chr.) Christenh., *comb. nov.* Basionym: *Cheilanthes rosulata* C.Chr., *Acta Horti Gothob.* 1: 89. 1924.

**Hemionitis rotundifolia** (G.Forst.) Christenh., *comb. nov.* Basionym: *Pteris rotundifolia* G.Forst., *Fl. Ins. Austr. Prodri.*: 79. 1786.

**Hemionitis rouxii** (Fraser-Jenk. & E.Wollenw.) Christenh., *comb. nov.* Basionym: *Aleuritopteris rouxii* Fraser-Jenk. & E.Wollenw., *Ferns & Fern-Allies Nepal* 1: 244. 2015.

**Hemionitis rufopunctata** (Rosenst.) Christenh., *comb. nov.* Basionym: *Cheilanthes rufopunctata* Rosenst., *Meded. Rijks-Herb.* 19: 9. 1913.

**Hemionitis rupicola** (Maxon) Christenh., *comb. nov.* Basionym: *Adiantopsis rupicola* Maxon, *Contr. U.S. Natl. Herb.* 10: 485. 1908.

**Hemionitis sagittifolia** (Raddi) Christenh., *comb. nov.* Basionym: *Pteris sagittifolia* Raddi, *Opusc. Sci.* 3: 292. 1819.

**Hemionitis sargentii** (Christ) Christenh., *comb. nov.* Basionym: *Gymnopteris sargentii* Christ, *Bot. Gaz.* 51: 355. 1911.

**Hemionitis sarmientoi** (Ponce) Christenh., *comb. nov.* Basionym: *Cheilanthes sarmientoi* Ponce, *Amer. Fern J.* 79: 131. 1989.

- Hemionitis scalariformis** (Link-Pérez, Seabolt & Ledford) Christenh., *comb. nov.* Basionym: *Adiantopsis scalariformis* Link-Pérez, Seabolt & Ledford, *Syst. Bot.* 41: 916. 2016.
- Hemionitis scariosa** (Sw.) Christenh., *comb. nov.* Basionym: *Acrostichum scariosum* Sw., *Syn. Filic.*: 16. 1806.
- Hemionitis schaffneri** (E.Fourn.) Christenh., *comb. nov.* Basionym: *Aleuritopteris schaffneri* E.Fourn., *Bull. Soc. Bot. France* 27: 328. 1880.
- Hemionitis schimperi** (Kunze) Christenh., *comb. nov.* Basionym: *Cheilanthes schimperi* Kunze, *Farrnkr.* 1: 52. 1840.
- Hemionitis schweinfurthii** (Hieron.) Christenh., *comb. nov.* Basionym: *Pteridella schweinfurthii* Hieron., *Pflanzenw. Ost-Afrikas C*: 78. 1895.
- Hemionitis scioana** (Chiov.) Christenh., *comb. nov.* Basionym: *Mohria scioana* Chiov., *Atti Reale Accad. Italia, Mem. Cl. Sc. Fis. Mat. Nat.* 11: 66. 1940.
- Hemionitis selinoides** (Mickel) Christenh., *comb. nov.* Basionym: *Cheilanthes selinoides* Mickel in McVaugh, *Fl. Novo-Galicianae* 17: 243. 1992.
- Hemionitis senae** (Baker) Christenh., *comb. nov.* Basionym: *Adiantum senae* Baker, *J. Bot.* 23: 217. 1885.
- Hemionitis shensiensis** (Ching) Christenh., *comb. nov.* Basionym: *Aleuritopteris shensiensis* Ching, *Fl. Tsinling.* 2: 66, 207. 1974.
- Hemionitis siamensis** (S.K.Wu) Christenh., *comb. nov.* Basionym: *Aleuritopteris siamensis* S.K.Wu, *Mem. Fac. Sci. Kyoto Univ., Biol.* 8: 152. 1983.
- Hemionitis sichouensis** (Ching & S.K.Wu) Christenh., *comb. nov.* Basionym: *Aleuritopteris sichouensis* Ching & S.K.Wu, *Acta Phytotax. Sin.* 19: 69. 1981.
- Hemionitis sieberi** (Kunze) Christenh., *comb. nov.* Basionym: *Cheilanthes sieberi* Kunze, *Ind. Sem. Hort. Lips.* 1839 and *Pl. Preiss. (Lehmann)* 2: 112. 1847 (validation).
- Hemionitis sikanda** Christenh., *nom. nov.* Replaced synonym: *Doryopteris pedatifida* Christ, *Bull. Herb. Boissier ser. 2, 2:* 546. 1902, not: *Hemionitis pedatifida* Sm. Etymology: Sikanda is the legendary sword given to Bastian by Graograman in *The Neverending Story* (Ende, 1979).
- Hemionitis similis** (Ballard) Christenh., *comb. nov.* Basionym: *Cheilanthes similis* Ballard, *Kew Bull.* 12: 47. 1957.
- Hemionitis sinuata** (Lag. ex Sw.) Christenh., *comb. nov.* Basionym: *Acrostichum sinuatum* Lag. ex Sw., *Syn. Filic.*: 14. 1806. (Figure 3F)
- Hemionitis skinneri** (Hook.) Christenh., *comb. nov.* Basionym: *Pellaea skinneri* Hook., *Sp. Filic.* 2: 141. 1858.
- Hemionitis solitaria** (R.N.Tryon) Christenh., *comb. nov.* Basionym: *Notholaena solitaria* R.M.Tryon, *Rhodora* 63: 82. 1961.
- Hemionitis sonorensis** (Goodd.) Christenh., *comb. nov.* Basionym: *Cheilanthes sonorensis* Goodd., *Muhlenbergia* 8: 93. 1912.
- Hemionitis speciosa** (Ching & S.K.Wu) Christenh., *comb. nov.* Basionym: *Aleuritopteris speciosa* Ching & S.K.Wu, *Acta Phytotax. Sin.* 19: 61. 1981.
- Hemionitis spiculata** (Mickel) Christenh., *comb. nov.* Basionym: *Cheilanthes spiculata* Mickel, *Mem. New York Bot. Gard.* 88: 210. 2004.
- Hemionitis squamosa** (Gillies ex Hook. & Grev.) Christenh., *comb. nov.* Basionym: *Cheilanthes squamosa* Gillies ex Hook. & Grev., *Icon. Filic.*: t. 151. 1829.
- Hemionitis stieri** (Rosenst.) Christenh., *comb. nov.* Basionym: *Doryopteris stieri* Rosenst., *Hedwigia* 46: 86. 1906.
- Hemionitis straminea** (Ching) Christenh., *comb. nov.* Basionym: *Pellaea straminea* Ching, *Bull. Fan Mem. Inst. Biol.* 2: 203. 1931.
- Hemionitis striata** (Desv.) Christenh., *comb. nov.* Basionym: *Pteris striata* Desv., *Mém. Soc. Linn. Paris* 6: 300. 1827.
- Hemionitis stuebeliana** (Hieron.) Christenh., *comb. & stat. nov.* Basionym: *Pellaea dealbata* (Pursh) Prantl var. *stuebeliana* Hieron., *Hedwigia* 48: 225. 1909.
- Hemionitis subargentea** (Ching) Christenh., *comb. nov.* Basionym: *Aleuritopteris subargentea* Ching, *Acta Phytotax. Sin.* 19: 65. 1981.
- Hemionitis subdimorpha** (C.B.Clarke & Baker) Christenh., *comb. & stat. nov.* Basionym: *Cheilanthes farinosa* (Forssk.) Kaulf. var. *subdimorpha* C.B.Clarke & Baker, *J. Linn. Soc., Bot.* 24: 411. 1888.
- Hemionitis subpaleacea** (Maxon) Christenh., *comb. nov.* Basionym: *Bommeria subpaleacea* Maxon, *Contr. U.S. Natl. Herb.* 17: 169. 1913.
- Hemionitis subsimplex** (Fée) Christenh., *comb. nov.* Basionym: *Pellaea subsimplex* Fée, *Crypt. Vasc. Brésil* 1: 44. 1869.
- Hemionitis subvillosa** (Hook.) Christenh., *comb. nov.* Basionym: *Cheilanthes subvillosa* Hook., *Sp. Filic.* 2: 87. 1852.
- Hemionitis sulphurea** (Cav.) Christenh., *comb. nov.* Basionym: *Pteris sulphurea* Cav., *Descr. Pl.*: 269. 1801.
- Hemionitis surinamensis** (Yesilyurt) Christenh., *comb. nov.* Basionym: *Doryopteris surinamensis* Yesilyurt, *Brittonia* 60: 63. 2008.
- Hemionitis takeuchii** (W.H.Wagner) Christenh., *comb. nov.* Basionym: *Cheilanthes takeuchii* W.H.Wagner, *Contr. Univ. Michigan Herb.* 19: 66. 1993.

- Hemionitis tamburii** (Hook.) Christenh., *comb. nov.*  
Basionym: *Pellaea tamburii* Hook., *Sp. Filic.* 2: 134. 1858.
- Hemionitis tenrecorum** Christenh., *nom. nov.* Replaced synonym: *Doryopteris madagascariensis* Tardieu, *Fl. Madagasc.* 5(1): 148. 1958. Etymology: Named for tenrecs (*Tenrec ecaudatus*) a native Madagascar mammal.
- Hemionitis tenuifolia** (Burm.f.) Christenh., *comb. nov.*  
Basionym: *Trichomanes tenuifolium* Burm.f., *Fl. Indica*: 237. 1768. (Figure 4A)
- Hemionitis ternifolia** (Cav.) Christenh., *comb. nov.*  
Basionym: *Pteris ternifolia* Cav., *Descr. Pl.*: 266. 1802.
- Hemionitis thellungii** (Herter) Christenh., *comb. nov.*  
Basionym: *Cheilanthes thellungii* Herter, *Anal. Mus. Nac. Montevideo*, ser. 2, 1: 360. 1925.
- Hemionitis thwaitesii** (Mett. ex Kuhn) Christenh., *comb. nov.* Basionym: *Cheilanthes thwaitesii* Mett. ex Kuhn, *Linnaea* 36: 82. 1869.
- Hemionitis tibetica** (Fraser-Jenk. & Wangdi) Christenh., *comb. nov.* *Cheilanthes tibetica* Fraser-Jenk. & Wangdi, *Fern Gaz.* 18: 218. 2009.
- Hemionitis tijucana** (Brade & Rosenst.) Christenh., *comb. nov.* Basionym: *Doryopteris tijucana* Brade & Rosenst., *Bol. Mus. Nac. Rio de Janeiro* 7: 144. 1931.
- Hemionitis timida** (Link-Pérez & Hickey) Christenh., *comb. nov.* Basionym: *Adiantopsis timida* Link-Pérez & Hickey, *Syst. Bot.* 35: 579. 2011.
- Hemionitis timorensis** (Alderw.) Christenh., *comb. nov.*  
Basionym: *Pellaea timorensis* Alderw., *Bull. Dépt. Agric. Ind. Néerl.* 18: 11. 1908.
- Hemionitis tinaei** (Tod.) Christenh., *comb. nov.*  
Basionym: *Cheilanthes tinaei* Tod., *Giorn. Sci. Nat. Econ. Palermo* 1: 217. 1866.
- Hemionitis triangularis** (Kaulf.) Christenh., *comb. nov.*  
Basionym: *Gymnogramma triangulare* Kaulf., *Enum. Filic.*: 73. 1824.
- Hemionitis tricholepifera** (Pic.-Serm.) Christenh., *comb. nov.* Basionym: *Negripteris tricholepifera* Pic.-Serm., *Webbia* 27: 411. 1972.
- Hemionitis trichomanoides** (L.) Christenh., *comb. nov.*  
Basionym: *Pteris trichomanoides* L., *Sp. Pl.* 2: 1074. 1753.
- Hemionitis trichophylla** (Baker) Christenh., *comb. nov.*  
Basionym: *Cheilanthes trichophylla* Baker, *Ann. Bot. (Oxford)* 5: 211. 1891.
- Hemionitis trifurcata** (Baker) Christenh., *comb. nov.*  
Basionym: *Cheilanthes trifurcata* Baker, *Bull. Misc. Inform. Kew* 1901(175-177): 144. 1901.
- Hemionitis trilobata** (J.Prado) Christenh., *comb. nov.*  
Basionym: *Doryopteris trilobata* J.Prado, *Kew Bull.* 48: 13. 1993.
- Hemionitis triphylla** (Lam.) Christenh., *comb. nov.*  
Basionym: *Adiantum triphyllum* Lam., *Encycl. Meth. Bot.* 1: 41. 1783.
- Hemionitis tripinnata** (Baker) Christenh., *comb. nov.*  
Basionym: *Pellaea tripinnata* Baker, *J. Linn. Soc., Bot.* 25: 350. 1889.
- Hemionitis truncata** (Goodd.) Christenh., *comb. nov.*  
Basionym: *Pellaea truncata* Goodd., *Muhlenbergia* 8: 94. 1912.
- Hemionitis tweediana** (Hook.) Christenh., *comb. nov.*  
Basionym: *Cheilanthes tweediana* Hook., *Sp. Pl.* 2: 84. 1852.
- Hemionitis urglae** Christenh., *nom. nov.* Replaced synonym: *Notholaena rigida* Davenp., *Gard. & Forest* 4: 519. 1891, not: *Hemionitis rigida* Cav. Etymology: Named for Uuml, a gnome married to Engywook in *The Neverending Story* (Ende, 1979).
- Hemionitis uyulala** Christenh., *nom. nov.* Replaced synonym: *Cheilanthes pteroides* Sw., *Syn. Filic.*: 128. 1806, not: *Hemionitis pteroides* (L.) Christenh. Etymology: Named for Uyulala the Southern Oracle in *The Neverending Story* (Ende, 1979).
- Hemionitis valdiviana** (Phil.) Christenh., *comb. nov.*  
Basionym: *Cheilanthes valdiviana* Phil., *Linnaea* 29: 106. 1857.
- Hemionitis vandervekenii** (Pic.-Serm.) Christenh., *comb. nov.* Basionym: *Aleuritopteris vandervekenii* Pic.-Serm., *Bull. Jard. Bot. Natl. Belg.* 53: 210. 1983.
- Hemionitis varians** (Raddi) Christenh., *comb. nov.*  
Basionym: *Pteris varians* Raddi, *Opusc. Sci.* 3: 292. 1819.
- Hemionitis veitchii** (Christ) Christenh., *comb. nov.*  
Basionym: *Doryopteris veitchii* Christ, *Bull. Acad. Int. Géogr. Bot.* 16: 134. 1906.
- Hemionitis velutina** (Tardieu & C.Chr.) Christenh., *comb. nov.* Basionym: *Notholaena velutina* Tardieu & C.Chr., *Notul. Syst. (Paris)* 6: 167. 1938.
- Hemionitis venusta** (Fée) Christenh., *comb. nov.*  
Basionym: *Notholaena venusta* Brade, *Anais Reun. Sul-Amer. Bot.* 2: 7. 1940.
- Hemionitis vestita** (Desv.) Christenh., *comb. nov.*  
Basionym: *Notholaena vestita* Desv., *J. Bot. Appl.* 1: 93. 1813.
- Hemionitis villosa** (Davenp. ex Maxon) Christenh., *comb. nov.* Basionym: *Cheilanthes villosa* Davenp. ex Maxon, *Proc. Biol. Soc. Wash.* 31: 142. 1918.
- Hemionitis vincentii** (M.S.Barker & Hickey) Christenh., *comb. nov.* Basionym: *Adiantopsis vincentii* M.S.Barker & Hickey, *Ann. Missouri Bot. Gard.* 93: 398. 2006.
- Hemionitis viridis** (Forssk.) Christenh., *comb. nov.*  
Basionym: *Pteris viridis* Forssk., *Fl. Aegypt.-Arab.*: 186. 1775.

**Hemionitis viscida** (Davenp.) Christenh., comb. nov.  
Basionym: *Cheilanthes viscida* Davenp., Bull. Torrey Bot. Club 6: 191. 1877.

**Hemionitis viscosa** (Schuettp. & Windham) Christenh., comb. nov.  
Basionym: *Pentagramma viscosa* Schuettp. & Windham, Syst. Bot. 40: 642. 2015.

**Hemionitis volcanensis** (de la Sota) Christenh., comb. nov.  
Basionym: *Cheilanthes volcanensis* de la Sota, Darwiniana 17: 78. 1972.

**Hemionitis vooshvazool** Christenh., nom. nov.  
Replaced synonym: *Pellaea microphylla* Mett. ex Kuhn, Linnaea 36: 86. 1869, not. *Hemionitis microphylla* (Sw.) Christenh. Etymology: Named for a nighthob, one of the messengers in *The Neverending Story* (Ende, 1979).

**Hemionitis welwitschii** (Hook. ex Baker) Christenh., comb. nov.  
Basionym: *Cheilanthes welwitschii* Hook. ex Baker, Syn. Filic.: 142. 1874.

**Hemionitis windhamii** (D.M.Benham) Christenh., comb. nov.  
Basionym: *Astrolepis windhamii* D.M.Benham, Amer. Fern J. 82: 60. 1992.

**Hemionitis woodfordii** (C.H.Wright) Christenh., comb. nov.  
Basionym: *Cassebeera woodfordii* C.H.Wright, Bull. Misc. Inf. Kew 1908(4): 183. 1908.

**Hemionitis wootonii** (Maxon) Christenh., comb. nov.  
Basionym: *Cheilanthes wootonii* Maxon, Proc. Biol. Soc. Washington 31: 146. 1918.

**Hemionitis wrightiana** (Hook.) Christenh., comb. nov.  
Basionym: *Pellaea wrightiana* Hook., Sp. Filic. 2: 142. 1858. (Figure 4B)

**Hemionitis wrightii** (Hook.) Christenh., comb. nov.  
Basionym: *Cheilanthes wrightii* Hook., Sp. Filic. 2: 87. 1858.

**Hemionitis xayide** Christenh., nom. nov.  
Replaced synonym: *Cheilanthes incisa* Kunze, Abh. Senckenberg. Naturf. Gesell. 3: 100. 1859, not. *Hemionitis incisa* Blanco. Etymology: Named for Xayide, an evil sorceress in *The Neverending Story* (Ende, 1979)

**Hemionitis yalungensis** (H.S.Kung) Christenh., comb. nov.  
Basionym: *Aleuritopteris yalungensis* H.S.Kung, Acta Bot. Yunnan. 5: 356. 1983.

**Hemionitis yavapensis** (T.Reeves ex Windham) Christenh., comb. nov.  
Basionym: *Cheilanthes yavapensis* T.Reeves ex Windham, Contr. Univ. Michigan Herb. 19: 32. 1993.

**Hemionitis ygramulorum** Christenh., nom. nov.  
Replaced synonym: *Cassebeera pinnata* Kaulf., Enum. Filic.: 217. 1824, not: *Hemionitis pinnata* Hook.f. Etymology: Named for Ygramul the Many, a shapeshifter in *The Neverending Story* (Ende, 1979).

**Hemionitis yikka** Christenh., nom. nov.  
Replaced synonym: *Pellaea rufa* A.F.Tryon, Ann. Missouri Bot. Gard. 42: 101. 1955, not: *Hemionitis rufa* Sw.

Etymology: Named for Yikka, Bastian's mule in *The Neverending Story* (Ende, 1979).

**Hemionitis yori** Christenh., nom. nov.  
Replaced synonym: *Adiantopsis pentagona* M.S.Barker & Hickey, Ann. Missouri Bot. Gard. 93: 392. 2006, not: *Hemionitis pentagona* (Schelpe & N.C.Anthony) Christenh. Etymology: Named for dream picture miner Yor in *The Neverending Story* (Ende, 1979).

**Hemionitis yunnanensis** (Ching) Christenh., comb. nov.  
Basionym: *Pellaea yunnanensis* Ching, Acta Phytotax. Sin. 20: 235. 1982.

**Pteris anopteris** Christenh., nom. nov.  
Replaced synonym: *Anopteris hexagona* (L.) C.Chr. subsp. *intermedia* C.V.Morton, Bull. Jard. Bot. État Bruxelles 27: 583. 1957, not: *Pteris intermedia* Blume. Etymology: Named for the former genus *Anopteris* now included in *Pteris*.

**F23. Aspleniaceae.** References: Kato & Darnaedi (1988), Ohlsen et al. (2014), Perrie et al. (2014), Almeida et al. (2016), Wei et al. (2018)

**Asplenium pleurosorum** Christenh., nom. nov.  
Replaced synonym: *Grammitis rutifolia* R.Br., Prod. Fl. Nov. Holland.: 146. 1810, not: *Asplenium rutifolium* Kunze. Etymology: Named for the now defunct genus *Pleurosorum*, a synonym of *Asplenium*. (Figures 4C–D)

**Athyrium approximatum** (W.M.Chu) Christenh., comb. nov.  
Basionym: *Cornopteris approximata* W.M.Chu, Acta Bot. Yunnan. 3: 342. 1981.

**Athyrium badium** (Ching) Christenh., comb. nov.  
Basionym: *Cornopteris badia* Ching, Bull. Fan Mem. Inst. Biol. Bot. 11: 58. 1941.

**Athyrium banajoense** (C.Chr.) Christenh., comb. nov.  
Basionym: *Dryopteris banajoensis* C.Chr., Ind. Filic., Suppl. 1906–1912: 30. 1913. Replaced synonym: *Dryopteris tenerima* Copeland, Philipp., J. Sci. Bot. 4: 111. 1909, not: *Dryopteris tenerima* Rosenst.

**Athyrium filix-incantatrix** Christenh., nom. nov.  
Replaced synonym: *Cornopteris latibasis* W.M.Chu, Acta Bot. Yunnan. 3: 344. 1981, not: *Athyrium latibasis* Ching. Etymology: The epithet means 'witch fern', one of the common names of this species.

**Athyrium majus** (W.M.Chu) Christenh., comb. nov.  
Basionym: *Cornopteris major* W.M.Chu, Acta Bot. Yunnan. 3: 348. 1981.

**Athyrium narthex** Christenh., nom. nov.  
Replaced synonym: *Cornopteris omeiensis* Ching, Bull. Fan Mem. Inst. Biol., n.s. 1: 287. 1949, not: *Athyrium omeiene* Ching. Etymology: From Classical Greek νάρθηξ (narhex), meaning a 'giant fennel' (*Ferula communis*, Apiaceae) or an 'atrium', referring to the small indusial pockets that are 'porch-like' or swollen like a fennel bulb.



Figure 4: **Ferns.** A, *Hemionitis tenuifolia* (Burm.f.) Christenh.; B, *Hemionitis wrightiana* (Hook.) Christenh.; C–D, *Asplenium pleurosorum* Christenh.; E–F, *Blechnum cyatheoides* (Kaulf.) Christenh.. All images © Maarten Christenhuzs.

- Athyrium philippinense** (M.Kato) Christenh., comb. nov. Basionym: *Cornopteris philippinensis* M.Kato, *Acta Phytotax. Geobot.* 30: 110. 1979.
- Athyrium pseudofluviale** (Ching & W.M.Chu) Christenh., comb. nov. Basionym: *Cornopteris pseudofluvialis* Ching & W.M.Chu, *Acta Bot. Yunnan.* 3: 345. 1981.
- Athyrium seramense** (M.Kato) Christenh., comb. nov. Basionym: *Cornopteris seramensis* M.Kato, *J. Jap. Bot.* 61: 233. 1986.
- Athyrium yunnanense** Christenh., nom. nov. Replaced synonym: *Cornopteris latiloba* Ching, *Fl. Xizang.* 1: 144. 1983, not: *Athyrium latilobum* Copel. Etymology: Named for Yunnan, a Chinese province where this species is found.
- Blechnum cyatheoides** (Kaulf.) Christenh., comb. nov. Basionym: *Sadleria cyatheoides* Kaulf., *Enum. Filic.*: 162. 1824. (Figures E–F)
- Blechnum unisorum** (Baker) Christenh., comb. nov. Basionym: *Polypodium unisorum* Baker, *Syn. Filic.*: 307. 1867.
- Blechnum wagnerianum** (D.D.Palmer & T.Flynn) Christenh., comb. nov. Basionym: *Sadleria wagneriana* D.D.Palmer & T.Flynn, *Pacific Sci.* 51: 302. 1997.
- Deparia thwaitesii** (A.Braun ex Mett.) Christenh., comb. nov. Basionym: *Asplenium thwaitesii* A.Braun ex Mett., *Abh. Senckenberg. Naturf. Gesell.* 6: 183. 1859.
- Deparia zanzibarica** (Baker) Christenh., comb. nov. *Asplenium zanzibanicum* Baker, *Ann. Bot. (Oxford)* 5: 311. 1891.
- Diplaziopsis flavoviridis** (Alston) Christenh. comb. nov. Basionym: *Diplazium flavoviride* Alston, *J. Bot.* 78: 226. 1940.
- Macrothelypteris banaensis** (Tardieu & C.Chr.) Christenh., comb. nov. Basionym: *Thelypteris banaensis* Tardieu & C.Chr., *Notul. Syst. (Paris)* 7: 66. 1938.
- Phegopteris andringitrensis** (Rakotondr.) Christenh., comb. nov. Basionym: *Pseudophegopteris andringitrensis* Rakotondr., *Adansonia* 34: 232. 2012.
- Phegopteris aubertii** (Desv.) Christenh., comb. nov. Basionym: *Polypodium aubertii* Desv., *Mém. Soc. Linn. Paris* 6: 243. 1827.
- Phegopteris brevipes** (Ching & S.K.Wu) Christenh., comb. nov. Basionym: *Pseudophegopteris brevipes* Ching & S.K.Wu, *Fl. Xizang.* 1: 163. 1983.
- Phegopteris cyclocarpa** (Holttum) Christenh., comb. nov. Basionym: *Pseudophegopteris cyclocarpa* Holttum, *Blumea* 13: 131. 1965.
- Phegopteris dianae** (Hook.) Christenh., comb. nov. Basionym: *Polypodium dianae* Hook., *Sp. Filic.* 4: 234. 1862.
- Phegopteris fijiensis** (K.U.Kramer & E.Zogg) Christenh., comb. nov. Basionym: *Pseudophegopteris fijiensis* K.U.Kramer & E.Zogg, *Blumea* 33: 423. 1988.
- Phegopteris henriquesii** (Baker) Christenh., comb. nov. Basionym: *Polypodium henriquesii* Baker, *Bol. Soc. Brot.* 4: 154. 1886.
- Phegopteris hirtirachis** (C.Chr.) Christenh., comb. nov. Basionym: *Dryopteris hirtirachis* C.Chr., *Ind. Filic., Suppl.* 1913–1916: 15. 1917.
- Phegopteris kinabaluensis** (Holttum) Christenh., comb. nov. Basionym: *Pseudophegopteris kinabaluensis* Holttum, *Blumea* 17: 16. 1969.
- Phegopteris microstegia** (Hook.) Christenh., comb. nov. Basionym: *Nephrodium microstegium* Hook., *Sp. Filic.* 1: 119. 1862.
- Phegopteris persimilis** (Baker) Christenh., comb. nov. Basionym: *Polypodium persimile* Baker, *J. Bot.* 14: 344. 1876.
- Phegopteris rectangularis** (Zoll.) Christenh., comb. nov. Basionym: *Polypodium rectangularare* Zoll., *Syst. Verz.*: 37, 48. 1854.
- Phegopteris tibetana** (Ching & S.K.Wu) Christenh., comb. nov. Basionym: *Pseudophegopteris tibetana* Ching & S.K.Wu, *Fl. Xizang.* 1: 164. 1983, not: *Phegopteris tibetica* Ching.
- Phegopteris yigongensis** (Ching) Christenh., comb. nov. Basionym: *Pseudophegopteris yigongensis* Ching, *Fl. Xizang.* 1: 165. 1983.
- Phegopteris zayuensis** (Ching & S.K.Wu) Christenh., comb. nov. Basionym: *Pseudophegopteris zayuensis* Ching & S.K.Wu, *Fl. Xizang.* 1: 164. 1983.
- Thelypteris abbreviata** (Ching & K.H.Shing) Christenh., comb. nov. Basionym: *Cyclosorus abbreviatus* Ching & K.H.Shing, *Jiangxi Sci.* 8: 45. 1990.
- Thelypteris aberrans** (Holttum) Christenh., comb. nov. Basionym: *Pneumatopteris aberrans* Holttum, *Blumea* 33: 401. 1988.
- Thelypteris acutidens** (Holttum) Christenh., comb. nov. Basionym: *Chingia acutidens* Holttum, *Kalikasan* 3: 17. 1974.
- Thelypteris adenopelta** (Holttum) Christenh., comb. nov. Basionym: *Christella adenopelta* Holttum, *Kew Bull.* 31: 322. 1976.
- Thelypteris alcasidii** (Holttum) Christenh., comb. nov. Basionym: *Sphaerostephanos alcasidii* Holttum, *Fl. Males., Ser. 2, Pterid.* I: 503. 1982.
- Thelypteris alpina** (Holttum) Christenh., comb. nov. Basionym: *Sphaerostephanos alpinus* Holttum, *Fl. Males., Ser. 2, Pterid.* I: 488. 1982.
- Thelypteris alticola** (Holttum) Christenh., comb. nov. Basionym: *Sphaerostephanos alticola* Holttum, *Fl. Males., Ser. 2, Pterid.* I: 484. 1982.



Figure 5: **Ferns.** A, *Thelypteris dodo* Christenh.; B–C, *Thelypteris tahitensis* (Holttum) Christenh.; and D, *Campyloneurum crassifolium* (L.) Christenh.. All images © Maarten Christenhusz.

***Thelypteris amphitricha* (Holttum) Christenh., comb. nov.** Basionym: *Pronephrium amphitrichum* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 521. 1982.

***Thelypteris angiensis* (Holttum) Christenh., comb. nov.** Basionym: *Plesioneuron angicense* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 406. 1982.

***Thelypteris angmarica* Christenh., nom. nov.** Replaced synonym: *Parathelypteris trichochlamys* Ching ex K.H.Shing, *Fl. Reipubl. Popularis Sin.* 4: 320. 1999, not: *Thelypteris trichochlamys* (Holttum) Christenh. Etymology: Named for Angmar, a fictional kingdom in Middle-earth, at the north end of the Misty Mountains (Tolkien, 1937–1955).

***Thelypteris angustibasis* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos angustibasis* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 476. 1982.

***Thelypteris angusticaudata* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris angusticaudata* Holttum, *Blumea* 21: 308. 1973.

***Thelypteris angustipinna* (Ching) Christenh., comb. & stat. nov.** Basionym: *Cyclosorus truncatus* (Poir.) Farw. var. *angustipinnus* Ching, *Bull. Fan Mem. Inst. Biol. Bot.* 8: 218. 1938.

***Thelypteris aragornii* Christenh., nom. nov.** Replaced synonym: *Pronephrium medogensis* Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 351. 1999, not: *Thelypteris medogensis* (Ching & S.K.Wu) Christenh. Etymology: Named for Aragorn II, chieftain of the Dúnedain of Arnor and member of the Fellowship of the Ring (Tolkien, 1937–1955).

***Thelypteris arenicola* (Holttum) Christenh., comb. nov.** Basionym: *Mesophlebion arenicola* Holttum, *Blumea* 22: 228. 1975.

***Thelypteris arwenae* Christenh., nom. nov.** Replaced synonym: *Pseudocyclosorus stramineus* Ching ex Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 329. 1999, not: *Thelypteris straminea* (Baker) C.F.Reed. Etymology: Named for elf Arwen Undómiel or Evenstar (Tolkien, 1937–1955).

***Thelypteris auctipinna* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris auctipinna* Holttum, *Blumea* 21: 310. 1973.

***Thelypteris aureoglandulifera* (Ching) Christenh., comb. nov.** Basionym: *Cyclosorus aureoglandulifer* Ching, *Fl. Reipubl. Popularis Sin.* 4: 345. 1999.

***Thelypteris aureoglandulosa* (Ching & K.H.Shing) Christenh., comb. nov.** Basionym: *Cyclosorus aureoglandulosus* Ching & KH.Shing, *Bull. Bot. Res., Harbin* 3(3): 4. 1983.

***Thelypteris australis* (Holttum) Christenh., comb. nov.** Basionym: *Chingia australis* Holttum, *Kew Bull.* 41: 518. 1986.

***Thelypteris bagginsiorum* Christenh., nom. nov.** Replaced synonym: *Pseudocyclosorus submarginalis*

Ching ex Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 328. 1999, not: *Thelypteris submarginalis* (Langsd. & Fisch.) Small. Etymology: Named for the Baggins family of Hobbiton (Tolkien, 1937–1955).

***Thelypteris balabacensis* (P.M.Zamora & Co Christenh., comb. nov.** Basionym: *Pronephrium balabacensis* P.M.Zamora & Co, *Nat. Appl. Sci. Bull., Univ. Philipp.* 32: 45. 1980.

***Thelypteris balrog* Christenh., nom. nov.** Replaced synonym: *Plesioneuron saxicola* M.Kato, *Bull. Natl. Mus. Natl. Sci., Tokyo, B* 33: 23. 2007, not: *Thelypteris saxicola* (Sw.) C.F.Reed. Etymology: Named for a fictional menacing creature in Tolkien's (1937–1955) Middle-earth legendarium.

***Thelypteris basicurtata* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris basicurtata* Holttum, *Blumea* 21: 309. 1973.

***Thelypteris batulantensis* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos batulantensis* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 473. 1982.

***Thelypteris beleriandica* Christenh., nom. nov.** Replaced synonym: *Goniopteris braezi* Salino, *Brittonia* 68: 448. 2016. Etymology: Named for Beleriand, a region in Middle-earth (Tolkien, 1937–1955).

***Thelypteris benoiteana* (Gaudich.) Christenh., comb. nov.** Basionym: *Polystichum benoiteanum* Gaudich., *Voy. Uranie, Bot.*: 331. 1828.

***Thelypteris bewaniensis* (Holttum) Christenh., comb. nov.** Basionym: *Chingia bewaniensis* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 393. 1982.

***Thelypteris bilboi* Christenh., nom. nov.** Replaced synonym: *Pneumatopteris imbricata* Holttum, *Blumea* 21: 322. 1973, not: *Thelypteris imbricata* (Liebm.) C.F.Reed. Etymology: Named for Bilbo Baggins of Hobbiton, title character of *The Hobbit* (Tolkien, 1937).

***Thelypteris birii* (R.D.Dixit & Balkr.) Christenh., comb. nov.** Basionym: *Pronephrium birii* R.D.Dixit & Balkr., *Indian Fern J.* 7: 20. 1990.

***Thelypteris bombadilii* Christenh., nom. nov.** Replaced synonym: *Metathelypteris glandulifera* Ching ex Shing, *Fl. Reipubl. Popularis Sin.* 4: 321. 1999, not: *Thelypteris glandulifera* (Brack.) C.F.Reed. Etymology: Named for Tom Bombadil, supporting character in Tolkien's (1954, 1955, 1962) Middle-earth legendarium.

***Thelypteris borealis* (H.Hara) Christenh., comb. & stat. nov.** Basionym: *Dryopteris nipponica* (Franch. & Sav.) C.Chr. var. *borealis* H.Hara, *Bot. Mag (Tokyo)* 48: 695. 1934.

***Thelypteris boridensis* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris boridensis* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 434. 1982.

***Thelypteris boromir* Christenh., nom. nov.** Replaced synonym: *Trigonospora angustifrons* Sledge, Bull. Brit. Mus. (Nat. Hist.), Bot. 8: 23. 1981, not: *Thelypteris angustifrons* (Miq.) Ching. Etymology: Named for Boromir, brother of Faramir and supporting character in Tolkien's (1937–1955) Middle-earth legendarium.

***Thelypteris braithwaitei* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos braithwaitei* Holttum, Allertonia 1: 206. 1977.

***Thelypteris brauseanum* (Holttum) Christenh., comb. nov.** Basionym: *Pronephrium brauseanum* Holttum, Blumea 20: 107. 1972.

***Thelypteris brevipes* (Ching) Christenh., comb. nov.** Basionym: *Cyclosorus brevipes* Ching, Fl. Reipubl. Popularis Sin. 4: 336. 1999.

***Thelypteris bryanii* (C.Chr.) Christenh., comb. nov.** Basionym: *Dryopteris bryanii* C.Chr., Bull. Bishop Mus. 177: 89. 1943.

***Thelypteris bulusanica* (Holttum) Christenh., comb. nov.** Basionym: *Haplodictyum bulusanicum* Holttum, Kalikasan 2: 61. 1973.

***Thelypteris burrowsiorum* (N.R.Crouch) Christenh., comb. nov.** Basionym: *Metathelypteris burrowsiorum* N.R.Crouch, Bothalia 41: 193. 2011.

***Thelypteris burundensis* (Pic.-Serm.) Christenh., comb. nov.** Basionym: *Christella burundensis* Pic.-Serm., Bull. Jard. Bot. Natl. Belg. 53: 277. 1983.

***Thelypteris buwaldae* (Holttum) Christenh., comb. nov.** Basionym: *Pronephrium buwaldae* Holttum, Blumea 20: 115. 1972.

***Thelypteris caii* (Ching) Christenh., comb. nov.** Basionym: *Cyclosorus caii* Ching, Fl. Reipubl. Popularis Sin. 4: 346. 1999.

***Thelypteris camarinensis* (Holttum) Christenh., comb. nov.** Basionym: *Nanoothelypteris camarinensis* Holtt., Kalikasan 5: 119. 1976.

***Thelypteris camerounensis* (Holttum) Christenh., comb. nov.** Basionym: *Pseudocyclosorus camerounensis* Holttum, J. S. Afr. Afr. Bot. 40: 137. 1974.

***Thelypteris caoshanensis* (Ching ex K.H.Shing) Christenh., comb. nov.** Basionym: *Parathelypteris caoshanensis* Ching ex K.H.Shing, Fl. Reipubl. Popularis Sin. 4: 321. 1999.

***Thelypteris caroli* (Holttum) Christenh., comb. nov.** Basionym: *Mesophlebion caroli* Holttum, Blumea 22: 227. 1975.

***Thelypteris carrii* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos carrii* Holttum, Fl. Males., Ser. 2, Pterid. I: 463. 1982.

***Thelypteris cartilagidens* (P.M.Zamora & Co) Christenh., comb. nov.** Basionym: *Sphaerostephanos cartilagidens* P.M.Zamora & Co, Nat. Appl. Sci. Bull., Univ. Philipp. 32: 43. 1980.

***Thelypteris caulescens* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos caulescens* Holttum, Fl. Males., Ser. 2, Pterid. I: 472. 1982.

***Thelypteris cavalierie* (H.Lév.) Christenh., comb. nov.** Basionym: *Christella cavalierie* H.Lév., Fl. Kouy-Tchéou: 474. 1915.

***Thelypteris celebornii* Christenh., nom. nov.** Replaced synonym: *Pronephrium clarkei* Sarn.Singh & Panigrahi, Ferns & Fern-Allies Arunachal Pradesh 2: 726. 2005, not: *Thelypteris clarkei* (Bedd.) C.F.Reed. Etymology: Named for the elf Celeborn (pronounced with a hard c as in 'cat'), from the Middle-earth legendarium (Tolkien, 1954–1955).

***Thelypteris centrochinensis* (Ching ex Y.X.Lin) Christenh., comb. nov.** Basionym: *Leptogramma centrochinensis* Ching ex Y.X.Lin, Fl. Reipubl. Popularis Sin. 4: 323. 1999.

***Thelypteris ceramica* (Alderw.) Christenh., comb. nov.** Basionym: *Phegopteris ceramica* Alderw., Bull. Dépt. Agric. Indes Néerl. 18: 15. 1908.

***Thelypteris changbaishanensis* (Ching ex K.H.Shing) Christenh., comb. nov.** Basionym: *Parathelypteris changbaishanensis* Ching ex K.H.Shing, Fl. Reipubl. Popularis Sin. 4: 319. 1999.

***Thelypteris cheesmaniae* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris cheesmaniae* Holttum, Blumea 21: 307. 1973.

***Thelypteris chingii* (Z.Y.Liu) Christenh., comb. nov.** Basionym: *Cyclosorus chingii* Z.Y.Liu, Bull. Bot. Res., Harbin 3: 25. 1983.

***Thelypteris clavata* (K.H.Shing) Christenh., comb. nov.** Basionym: *Cyclosorus clavatus* K.H.Shing, Fl. Reipubl. Popularis Sin. 4: 350. 1999. Replaced synonym: *Cyclosorus cuneatus* Ching ex K.H.Shing, Fl. Reipubl. Popularis Sin. 4: 347. 1999; not: *Thelypteris cuneata* (C.Chr.) C.F.Reed.

***Thelypteris clavipilosa* (Holttum) Christenh., comb. nov.** Basionym: *Chingia clavipilosa* Holttum, Kalikasan 3: 23. 1974.

***Thelypteris comorensis* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris comorensis* Holttum, Blumea 21: 318. 1973.

***Thelypteris contracta* (Ching) Christenh., comb. nov.** Basionym: Basionym: *Cyclosorus contractus* Ching, Fl. Reipubl. Popularis Sinicae 4: 192. 1999.

***Thelypteris convergens* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos convergens* Holttum, Fl. Males., Ser. 2, Pterid. I: 477. 1982.

***Thelypteris costularisora* (Ching ex K.H.Shing) Christenh., comb. nov.** Basionym: *Cyclogramma costularisora* Ching ex K.H.Shing, Ann. Bot. Fenn. 51: 407. 2014, and Fl. Reipubl. Popularis Sin. 4: 322. 1999.

***Thelypteris crenulata* (Holttum) Christenh., comb. nov.** Basionym: *Pronephrium crenulatum* Holttum, *Blumea* 20: 123. 1972.

***Thelypteris croftii* (Holttum) Christenh., comb. nov.** Basionym: *Plesioneuron croftii* Holttum, *Fl. Males. Ser. 2, Pterid.* I: 411. 1982.

***Thelypteris cystodioides* (Holttum) Christenh., comb. nov.** Basionym: *Plesioneuron cystodioides* Holttum, *Fl. Males. Ser. 2, Pterid.* I: 405. 1982.

***Thelypteris damingshanensis* (Ching ex Y.X.Lin) Christenh., comb. nov.** Basionym: *Pseudocyclosorus damingshanensis* Ching ex Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 330. 1999.

***Thelypteris darainensis* (Rakotondr.) Christenh., comb. nov.** Basionym: *Christella darainensis* Rakotondr., *Adansonia*, sér. 3, 34: 224. 2012.

***Thelypteris daymaniana* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos daymanianus* Holttum, *Fl. Males. Ser. 2, Pterid.* I: 451. 1982.

***Thelypteris deficiens* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris deficiens* Holttum, *Blumea* 21: 321. 1973.

***Thelypteris dehuaensis* (Y.X.Lin) Christenh., comb. nov.** Basionym: *Pseudocyclosorus dehuaensis* Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 326. 1999.

***Thelypteris delicata* (R.S.Fern. & Salino) Christenh., comb. nov.** Basionym: *Meniscium delicatum* R.S.Fern. & Salino, *Phytotaxa* 273: 176. 2016.

***Thelypteris deltoideofrons* (Ching ex W.M.Chu & S.G.Lu) Christenh., comb. nov.** Basionym: *Metathelypteris deltoideofrons* Ching ex W.M.Chu & S.G.Lu, *Fl. Yunnan.* 20: 720. 2006.

***Thelypteris dimidiolobata* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos dimidiolobatus* Holttum, *Fl. Males. Ser. 2, Pterid.* I: 459. 1982.

***Thelypteris diminuta* (Copel.) Christenh., comb. nov.** Basionym: *Dryopteris diminuta* Copel., *Philipp. J. Sci.* 40: 298. 1929.

***Thelypteris dissitifolia* (Holttum) Christenh., comb. nov.** Basionym: *Stegnogramma dissitifolia* Holttum, *Fl. Males. Ser. 2, Pterid.* I: 543. 1981.

***Thelypteris diversiloba* (C.Presl) Christenh., comb. nov.** Basionym: *Nephrodium diversilobum* C.Presl, *Epimel. Bot.* 47. 1851.

***Thelypteris doctersii* (Holttum) Christenh., comb. nov.** Basionym: *Plesioneuron doctersii* Holttum, *Blumea* 22: 246. 1975.

***Thelypteris dodo* Christenh., nom. nov.** Replaced synonym: *Aspidium elatum* Bojer ex Willd. *Sp. Pl. (ed. quarta)* 5: 285. 1810, not: *Thelypteris elata* Schelpe. Etymology: Named for the dodo (*Raphus cucullatus*), an extinct bird of Mauritius, where this species of fern is found. (Figure 5A)

***Thelypteris draco* Christenh., nom. nov.** Replaced synonym: *Nephrodium acrostichoides* Desv., *Mém. Soc. Linn. Paris* 6: 255. 1827, not: *Thelypteris acrostichoides* (Michx.) Nieuwl. Etymology: Draco meaning dragon, a mythological creature found in many stories and legends around the world.

***Thelypteris dryas* (Holttum) Christenh., comb. nov.** Basionym: *Plesioneuron dryas* Holttum, *Blumea* 22: 247. 1975.

***Thelypteris dulitensis* (Holttum) Christenh., comb. nov.** Basionym: *Mesophlebion dulitense* Holttum, *Blumea* 22: 229. 1975.

***Thelypteris dulongjiangensis* (W.M.Chu) Christenh., comb. nov.** Basionym: *Pseudocyclosorus dulongjiangensis* W.M.Chu, *Acta Bot. Yunnan.*, *Suppl.* 5: 44. 1992.

***Thelypteris eburnea* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris eburnea* Holttum, *Fl. Males. Ser. 2, Pterid.* I: 434. 1982.

***Thelypteris efogensis* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos efogensis* Holttum, *Fl. Males. Ser. 2, Pterid.* I: 482. 1982.

***Thelypteris egenolfioides* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris egenolfioides* Holttum, *Blumea* 21: 306. 1973.

***Thelypteris ekutiensis* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos ekutiensis* Holttum, *Fl. Males. Ser. 2, Pterid.* I: 483. 1982.

***Thelypteris elrondi* Christenh., nom. nov.** Replaced synonym: *Meniscium divergens* R.S.Fern. & Salino, *Phytotaxa* 184: 2. 2014, not: *Thelypteris divergens* (Rosenvst.) C.F.Reed. Etymology: Named for Elron Half-elven, Lord of Rivendell in the Middle-earth legendarium (Tolkien, 1937–1955).

***Thelypteris emeiensis* (Y.X.Lin) Christenh., comb. nov.** Basionym: *Glyphyropteridopsis emeiensis* Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 324. 1999.

***Thelypteris eminens* (Baker) Christenh., comb. nov.** Basionym: *Nephrodium eminens* Baker, *J. Bot.* 18: 213. 1880.

***Thelypteris endertii* (C.Chr.) Christenh., comb. nov.** Basionym: *Dryopteris endertii* C.Chr., *Dansk Bot. Ark.* 9: 60. 1937.

***Thelypteris endorica* Christenh., nom. nov.** Replaced synonym: *Cyclosorus serratus* Copel. *Philipp. J. Sci.* 81: 36. 1952, not: *Thelypteris serrata* (Cav.) Alston. Etymology: Named for Endor, the Quenya name of Middle-earth (Tolkien, 1937–1955).

***Thelypteris eowynae* Christenh., nom. nov.** Replaced synonym: *Nephrodium motleyanum* Hook., *Syn. Filic.* 266. 1867, not: *Thelypteris motleyana* (Christ) Holttum. Etymology: Named for Éowyn, a noblewoman of Rohan in Middle-earth (Tolkien, 1954–1955).

***Thelypteris eriocarpa* (Ching) Christenh., comb. nov.**  
Basionym: *Glaphyropteridopsis eriocarpa* Ching, *Acta Phytotax. Sin.* 8: 321. 1963.

***Thelypteris erwinii* (Holttum) Christenh., comb. nov.**  
Basionym: *Sphaerostephanos erwinii* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 504. 1982.

***Thelypteris excisa* (Holttum) Christenh., comb. nov.**  
Basionym: *Pseudocyclosorus excisus* Holttum, *Blumea* 13: 133. 1965.

***Thelypteris exsculpta* (Baker) Christenh., comb. nov.**  
Basionym: *Acrostichum exsculptum* Baker, *J. Bot.* 26: 326. 1888.

***Thelypteris falcatiloba* (Holttum) Christenh., comb. nov.** Basionym: *Mesophlebion falcatilobum* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 382. 1982.

***Thelypteris fangornica* Christenh., nom. nov.** Replaced synonym: *Dryopteris stegnogramme* C.Chr. var. *asplenoides* C.Chr., *Acta Horti Gothob.* 1: 56. 1924, not: *Thelypteris asplenoides* (Sw.) Proctor. Etymology: Named for Fangorn (or Beardtree), an ancient forest located in Middle-earth and home of Treebeard the Ent (Tolkien, 1937–1955).

***Thelypteris faramir* (Ching ex Y.X.Lin) Christenh., nom. nov.** Replaced synonym: *Pseudocyclosorus angustipinnus* Ching ex Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 329. 1999, not: *Thelypteris angustipinna* (Ching) Christenh. Etymology: Named for Faramir, second son of Denethor II of Gondor in Middle-earth (Tolkien, 1954–1955).

***Thelypteris fideleae* (Rakotondr.) Christenh., comb. nov.** Basionym: *Pronephrium fideleae* Rakotondr., *Adansonia*, sér. 3, 34: 226. 2012, as 'fidelei'

***Thelypteris filix-femina* Christenh., nom. nov.** Replaced synonym: *Glaphyropteridopsis jinfushanensis* Ching & Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 325. 1999, not: *Thelypteris jinfoshanensis* (Ching & Z.Y.Liu) Christenh. Note and etymology: the basionym is an orthographic variant and if maintained will cause confusion, hence a new name, based on the delicate leaves of this species, was chosen. It translates as female fern fern, a synonym of *Thelypteris* which means the same in Greek.

***Thelypteris flavoviridis* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos flavoviridis* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 450. 1982.

***Thelypteris florencei* (A.R.Sm. & Lorence) Christenh., comb. nov.** Basionym: *Cyclosorus florencei* A.R.Sm. & Lorence, *PhytoKeys* 4: 40. 2011.

***Thelypteris foliolosa* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos foliolosus* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 488. 1982.

***Thelypteris formosa* (Nakaike) Christenh., comb. nov.** Basionym: *Parathelypteris formosa* Nakaike, *J. Nippon Fernist Club* 3 (Suppl. 2): 137. 2004.

***Thelypteris foxworthyi* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos foxworthyi* Holttum, *Fl. Males. Ser. 2, Pterid.* I: 475. 1982.

***Thelypteris frodoi* Christenh., nom. nov.** Replaced synonym: *Trigonospora loyalii* Panigrahi & Sarn. Singh, *Ferns & Fern-Allies Arunachal Pradesh* 2: 772. 2005, not: *Thelypteris loyalii* (Holttum) Fraser-Jenk.. Etymology: Named for Frodo Baggins of Hobbiton, member of the Fellowship of the Ring and bearer of the One Ring (Tolkien, 1937–1955).

***Thelypteris fuchsii* (Holttum) Christenh., comb. nov.** Basionym: *Plesioneuron fuchsii* Holttum, *Blumea* 22: 236. 1975.

***Thelypteris fugongensis* (Y.X.Lin) Christenh., comb. nov.** Basionym: *Pseudocyclosorus fugongensis* Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 327. 1999.

***Thelypteris furcatovenulosa* (Y.X.Lin) Christenh., comb. nov.** Basionym: *Pseudocyclosorus furcatovenulosus* Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 330. 1999.

***Thelypteris galadriæ* Christenh., nom. nov.** Replaced synonym: *Parathelypteris caudata* Ching ex K.H.Shing, *Fl. Reipubl. Popularis Sin.* 4: 320. 1999, not: *Thelypteris caudata* (Ching) C.F.Reed. Etymology: Named for royal elf Galadriel, Lady of Lórien (Tolkien, 1937–1955).

***Thelypteris gandalfii* Christenh., nom. nov.** Replaced synonym: *Trigonospora glandulosa* Sledge, *Bull. Brit. Mus. (Nat. Hist.), Bot.* 8: 23. 1981, not: *Thelypteris glandulosa* (Desv.) Proctor. Etymology: Named for the wizard Gandalf of the Istari order and leader of the Fellowship of the Ring (Tolkien, 1937–1955).

***Thelypteris gaudichaudii* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos gaudichaudii* Holttum, *Kew Bull.* 34: 228. 1979.

***Thelypteris giluwensis* (Holttum) Christenh., comb. nov.** Basionym: *Pronephrium giluwense* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 520. 1982.

***Thelypteris gimlii* Christenh., nom. nov.** Replaced synonym: *Goniopteris subdimorpha* Salino, *Phytotaxa* 255: 253. 2015, not: *Thelypteris subdimorpha* (Copel.) C.F.Reed. Etymology: Named for dwarf warrior Gimli, son of Glóin, member of the Fellowship of the Ring (Tolkien, 1937–1955).

***Thelypteris glorfindelii* Christenh., nom. nov.** Replaced synonym: *Nephrodium debile* Baker, *J. Bot.* 18: 212. 1880, not: *Thelypteris debilis* (Mett.) C.F.Reed. Etymology: Named for the elf Glorfindel, Lord of Gondolin in Middle-earth (Tolkien, 1937–1955).

***Thelypteris gollum* Christenh., nom. nov.** Replaced synonym: *Pseudocyclosorus obliquus* Ching ex Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 331. 1999, not: *Thelypteris obliqua* (Holttum) Christenh. Etymology: Named for the stoor hobbit Sméagol, who was corrupted by the One Ring and was later named

Gollum after his habit of making a gutteral noise (Tolkien, 1937–1955).

***Theleypteris gondorica* Christenh., nom. nov.** Replaced synonym: *Glaphyropteridopsis mollis* Ching & Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 324. 1999, not: *Theleypteris mollis* (Mett.) R.M.Tryon. Etymology: Named for the fictional kingdom of Gondor in Middle-earth (Tolkien, 1937–1955).

***Theleypteris gongshanensis* (Y.X.Lin) Christenh., comb. nov.** Basionym: *Pseudocyclosorus gongshanensis* Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 328. 1999.

***Theleypteris gracilis* (Ching ex Y.X.Lin) Christenh., comb. nov.** Basionym: *Pronephrium gracilis* Ching ex Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 352. 1999.

***Theleypteris grandescens* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos grandescens* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 465. 1982.

***Theleypteris grandissima* (Ching & K.H.Shing) Christenh., comb. nov.** Basionym: *Cyclosorus grandissimus* Ching & K.H.Shing, *Fl. Fujianica* 1: 599. 1982.

***Theleypteris grima* Christenh., nom. nov.** Replaced synonym: *Phegopteris nervosa* Fée, *Mém. Foug.* 5: 244. 1850, not: *Theleypteris nervosa* (Klotzsch) R.M.Tryon. Etymology: Named for Grima the Wormtongue, a fictional malicious character in Tolkien's (1954–1955) Middle-earth legendarium.

***Theleypteris grokei* Christenh., nom. nov.** Replaced synonym: *Cyclogramma tibetica* Ching & S.K.Wu, *Fl. Xizang.* 1: 157. 1983, not: *Theleypteris tibetica* (Ching) Fraser-Jenk. Etymology: Named for the Groke (English), a fictional ghost-like creature in the Moominvalley stories of Tove Jansson (1945–1970).

***Theleypteris guangxianensis* (Ching ex Y.X.Lin) Christenh., comb. nov.** Basionym: *Pseudocyclosorus guanxianensis* Ching ex Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 331. 1999.

***Theleypteris guangxiensis* (Y.X.Lin) Christenh., comb. nov.** Basionym: *Pseudocyclosorus guangxiensis* Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 327. 1999.

***Theleypteris gymnorachis* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos gymnorachis* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 479. 1982.

***Theleypteris haisuli* Christenh., nom. nov.** Replaced synonym: *Sphaerostephanos pilosissimus* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 504. 1982, not: *Theleypteris pilosissima* C.V.Morton. Etymology: Named for Haisuli (Finnish), a foul-smelling creature in the Moominvalley stories of Tove Jansson (1945–1970).

***Theleypteris hattivattiorum* Christenh., nom. nov.** Replaced synonym: *Cyclosorus multisorus* Ching, *Fl. Reipubl. Popularis Sin.* 4: 334. 1999, not: *Theleypteris multisora* (C.Chr. ex C.Chr. & Holttum) C.F.Reed. Etymology: Named for the Hattifatteners (Hattivatti

in Finnish), fictional electric characters in the Moominvalley stories of Tove Jansson (1945–1970).

***Theleypteris hekouensis* (Ching ex Y.X.Lin) Christenh., comb. nov.** Basionym: *Pronephrium hekouensis* Ching ex Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 353. 1999.

***Theleypteris hellwigensis* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos hellwigensis* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 500. 1982.

***Theleypteris helmsdeepensis* Christenh., nom. nov.** Replaced synonym: *Cyclosorus oppositipinnus* Ching & Z.Y.Liu, *Bull. Bot. Res., Harbin* 4: 15. 1984, not: *Theleypteris oppositipinna* (Alderw.) Ching. Etymology: Named for Helms Deep, a fictional land in Middle-earth (Tolkien (1945–1955).

***Theleypteris hemuli* Christenh., nom. nov.** Replaced synonym: *Cyclosorus macrophyllus* Ching & Z.Y.Liu, *Bull. Bot. Res., Harbin* 4: 16. 1984, not: *Theleypteris macrophylla* (Kunze) C.V.Morton. Etymology: Named for a Hemulen (Hemuli in Finnish), a fictional character in the Moominvalley stories of Tove Jansson (1945–1970).

***Theleypteris hendersonii* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos hendersonii* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 493. 1982.

***Theleypteris hernaezii* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos hernaezii* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 459. 1982.

***Theleypteris hirsuta* (Kunze ex Mett.) Christenh., comb. nov.** Basionym: *Aspidium hirsutum* Kunze ex Mett., *Abh. Senckenberg. Naturf. Gesell.* 2: 391. 1858.

***Theleypteris hirtipes* (K.H.Shing & C.F.Zhang) Christenh., comb. nov.** Basionym: *Cyclosorus hirtipes* K.H.Shing & C.F.Zhang, *Fl. Reipubl. Popularis Sin.* 4: 345. 1999.

***Theleypteris hoalensis* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos hoalensis* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 488. 1982.

***Theleypteris hobbitonica* Christenh., nom. nov.** Replaced synonym: *Cyclosorus sledgei* Panigrahi & Sarn.Singh, *Ferns & Fern-Allies Arunachal Pradesh* 2: 704. 2005, not: *Theleypteris sledgei* Fraser-Jenk. Etymology: Named for Hobbiton, a fictional village in the Shire of Middle-earth (Tolkien, 1937–1955).

***Theleypteris hobbitorum* Christenh., nom. nov.** Replaced synonym: *Nephrodium zeylanicum* Fée, *Mém. Foug.* 10: 42. 1865, not: *Theleypteris zeylanica* Ching. Etymology: Named for the hobbits, a fictional race of halflings that live in Middle-earth (Tolkien, 1937–1955).

***Theleypteris hochreutineri* (C.Chr.) Christenh., comb. nov.** Basionym: *Dryopteris hochreutineri* C.Chr., *Annuaire Conserv. Jard. Bot. Genève* 15–16: 188. 1912.

***Thelypteris holttumii* (Sarn.Singh & Panigrahi) Christenh., comb. nov.** Basionym: *Cyclosorus holttumii* Sarn.Singh & Panigrahi, *Ferns & Fern-Allies Arunachal Pradesh* 2: 682. 2005.

***Thelypteris hopeana* (Baker) Christenh., comb. nov.** Basionym: *Nephrodium hopeanum* Baker, *Syn. Filic. ed. 2:* 494. 1874.

***Thelypteris hosokawana* Christenh., nom. nov.** Replaced synonym: *Glaphyropteris rupicola* Hosok., not: *Thelypteris rupicola* (C.Chr.) Ching. Etymology: This species was named for Takahide Hosokawa who first described it.

***Thelypteris huishuiensis* (Ching ex Y.X.Lin) Christenh., comb. nov.** Basionym: *Leptogramma huishuiensis* Ching ex Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 323. 1999.

***Thelypteris humbertii* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris humbertii* Holttum, *Blumea* 21: 313. 1973.

***Thelypteris humili* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos humili* Holttum, *Fl. Males.*, Ser. 2, Pterid. I: 468. 1982.

***Thelypteris hypolarix* Christenh., nom. nov.** Replaced synonym: *Pseudocyclosorus emeiensis* Ching ex Y.X.Lin, *Fl. Reipubl. Pop. Sin.* 4: 330. 1999, not: *Thelypteris emeiensis* (Y.X.Lin) Christenh. Etymology: This species grows in larch (*Larix*) forests, hence the name, *hypo* meaning 'under'.

***Thelypteris immucosa* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos immucosus* Holttum, *Blumea* 33: 404. 1988.

***Thelypteris inaequilobata* (Holttum) Christenh., comb. nov.** Basionym: *Nanoothelypteris inaequilobata* Holttum, *Kalikasan* 2: 67. 1973.

***Thelypteris incisa* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris incisa* Holttum, *Blumea* 21: 317. 1973.

***Thelypteris indrapuriae* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos indrapuriae* Holttum, *Fl. Males.*, Ser. 2, Pterid. I: 475. 1982.

***Thelypteris isildurii* Christenh., nom. nov.** Replaced synonym: *Nephrodium angustifolium* C.Presl, *Epimel. Bot.*: 48. 1851, not: *Thelypteris angustifolia* (Willd.) Proctor. Etymology: Named for Isildur, son of Elendil of Gondor, who cut the One Ring of Sauron's hand, a fictional character in the Middle-earth legendarium (Tolkien, 1937–1955).

***Thelypteris isomorpha* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos isomorphus* Holttum, *Fl. Males.*, Ser. 2, Pterid. I: 458. 1982.

***Thelypteris japonensis* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris japonensis* Holttum, *Fl. Males.*, Ser. 2, Pterid. I: 426. 1982.

***Thelypteris jermyi* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris jermyi* Holttum, *Blumea* 21: 310. 1973.

***Thelypteris jijiangensis* (Ching ex Y.X.Lin) Christenh., comb. nov.** Basionym: *Pseudocyclosorus jijiangensis* Ching ex Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 330. 1999.

***Thelypteris jinfoshanensis* (Ching & Z.Y.Liu) Christenh., comb. nov.** Basionym: *Leptogramma jinfoshanensis* Ching & Z.Y.Liu, *Bull. Bot. Res., Harbin* 4: 17. 1984.

***Thelypteris jinghongensis* (Ching ex K.H.Shing) Christenh., comb. nov.** Basionym: *Cyclosorus jinghongensis* Ching ex K.H.Shing, *Fl. Reipubl. Popularis Sin.* 4: 217. 1999.

***Thelypteris johannae* (Holttum) Christenh., comb. nov.** Basionym: *Pseudocyclosorus johannae* Holttum, *J. S. African Bot.* 40: 138. 1974.

***Thelypteris kalkmanii* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos kalkmanii* Holttum, *Fl. Males.*, Ser. 2, Pterid. I: 454. 1982.

***Thelypteris kerintjiensis* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris kerintjiensis* Holttum, *Blumea* 21: 312. 1973.

***Thelypteris kiauensis* (C.Chr.) Christenh., comb. nov.** Basionym: *Dryopteris kiauense* C.Chr., *Dansk Bot. Ark.* 9: 64. 1937.

***Thelypteris kjellbergii* (Holttum) Christenh., comb. nov.** Basionym: *Pronephrium kjellbergii* Holttum, *Blumea* 20: 117. 1972.

***Thelypteris koordersii* (Christ) Christenh., comb. nov.** Basionym: *Aspidium koordersii* Christ, *Ann. Jard. Bot. Buitenzorg* 15: 128. 1897.

***Thelypteris kostermansii* (Holttum) Christenh., comb. nov.** Basionym: *Plesioneuron kostermansii* Holttum, *Fl. Males.*, Ser. 2, Pterid. I: 406. 1982.

***Thelypteris krameri* (Sarn.Singh & Panigrahi) Christenh., comb. nov.** Basionym: *Cyclosorus krameri* Sarn.Singh & Panigrahi, *Ferns & Fern-Allies Arunachal Pradesh* 2: 687. 2005.

***Thelypteris kundipensis* (Holttum) Christenh., comb. nov.** Basionym: *Plesioneuron kundipense* Holttum, *Blumea* 22: 247. 1975.

***Thelypteris lamii* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos lamii* Holttum, *Fl. Males.*, Ser. 2, Pterid. I: 455. 1982.

***Thelypteris lastreoides* (C.Presl) Christenh., comb. nov.** Basionym: *Pronephrium lastreoides* C.Presl, *Epimel. Bot.*: 259. 1851.

***Thelypteris latisquamata* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris latisquamata* Holttum, *Blumea* 21: 305. 1973.

- Thelypteris lawakii* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris lawakii* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 430. 1982. Replaced synonym: *Polystichum truncatum* Gaudich., not: *Thelypteris truncata* (Poir.) K.Iwats.
- Thelypteris legolas* Christenh., nom. nov.** Replaced synonym: *Stegnogramma crenata* Holttum, *Blumea* 33: 404. 1998, not: *Thelypteris crenata* A.R.Sm. & Lellinger. Etymology: Named for woodland elf Legolas, member of the Fellowship of the Ring (Tolkien, 1937–1955).
- Thelypteris lenormandii* (C.Chr) Christenh., comb. nov.** Basionym: *Dryopteris lenormandii* C.Chr., *Index Filic.*: 274. 1905.
- Thelypteris lindleyi* (W.N.Takeuchi) Christenh., comb. nov.** Basionym: *Amphineuron lindleyi* W.N.Takeuchi, *Harvard Pap. Bot.* 10: 105. 2005.
- Thelypteris linearis* (Ching & K.H.Shing ex Y.X.Lin) Christenh., comb. nov.** Basionym: *Pseudocyclosorus linearis* Ching & K.H.Shing ex Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 328. 1999.
- Thelypteris lithophila* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris lithophila* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 422. 1982.
- Thelypteris longqishanensis* (K.H.Shing) Christenh., comb. nov.** Basionym: *Cyclosorus longqishanensis* K.H.Shing, *Fl. Reipubl. Popularis Sin.* 4: 219. 1999.
- Thelypteris lorzingii* (Holttum) Christenh., comb. nov.** Basionym: *Chingia lorzingii* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 393. 1982.
- Thelypteris lucbanii* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos lucbanii* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 463. 1982.
- Thelypteris lushanensis* (Ching ex Y.X.Lin) Christenh., comb. nov.** Basionym: *Pseudocyclosorus lushanensis* Ching ex Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 328. 1999.
- Thelypteris lushuiensis* (Y.X.Lin) Christenh., comb. nov.** Basionym: *Pseudocyclosorus lushuiensis* Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 327. 1999.
- Thelypteris maguanensis* (Ching ex K.H.Shing) Christenh., comb. nov.** Basionym: *Cyclogramma maguanensis* Ching ex K.H.Shing, *Fl. Reipubl. Popularis Sin.* 4: 322. 1999.
- Thelypteris major* (Copel.) Christenh., comb. nov.** Basionym: *Haplodictyum majus* Copel., *Elmer's Leaflets* 9: 3110. 1920.
- Thelypteris makassarica* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos makassaricus* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 498. 1982.
- Thelypteris marattioides* (Alston) Christenh., comb. nov.** Basionym: *Dryopteris marattioides* Alston, *J. Bot.* 78: 227. 1940.
- Thelypteris marojejyensis* (Rakotondr.) Christenh., comb. nov.** Basionym: *Pronephrium marojejyensis* Rakotondr., *Adansonia* 34: 230. 2012.
- Thelypteris marquesica* (Holttum) Christenh., comb. nov.** Basionym: *Plesioneuron marquesicum* Holttum, *Allertonia* 1: 192. 1977.
- Thelypteris medlerae* (W.N.Takeuchi) Christenh., comb. nov.** Basionym: *Pneumatopteris medlerae* W.N.Takeuchi, *Blumea* 52: 154. 2007.
- Thelypteris medogensis* (Ching & S.K.Wu) Christenh., comb. nov.** Basionym: *Cyclosorus medogensis* Ching & S.K.Wu, *Fl. Xizang.* 1: 171. 1983.
- Thelypteris medusella* (Holttum) Christenh., comb. nov.** Basionym: *Plesioneuron medusella* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 400. 1982.
- Thelypteris melanorachis* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos melanorachis* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 457. 1982.
- Thelypteris menadensis* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos menadensis* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 469. 1982.
- Thelypteris mengeniana* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos mengenianus* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 491. 1982.
- Thelypteris merryi* Christenh., nom. nov.** Replaced synonym: *Stegnogramma aspidiooides* Blume, *Enum Pl. Jav.* 173. 1828, not: *Thelypteris aspidiooides* (Willd.) R.M.Tryon. Etymology: Named for Meriadoc (Merry) Brandybuck, a hobbit who joined the Fellowship of the Ring (Tolkien, 1937–1955).
- Thelypteris michaelis* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris michaelis* Holttum, *Blumea* 21: 313. 1973.
- Thelypteris micropaleata* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris micropaleata* Holttum, *Blumea* 21: 319. 1973.
- Thelypteris micropinnata* (Holttum) Christenh., comb. nov.** Basionym: *Pronephrium micropinnatum* Holttum, *Blumea* 20: 108. 1972.
- Thelypteris middle-earthica* Christenh., nom. nov.** Replaced synonym: *Christella pacifica* Holttum, *Kew Bull.* 31: 320. 1976, not: *Thelypteris pacifica* C.F.Reed. Etymology: Named for the fictional continent of Middle-earth in Tolkien's legendarium (1937–1955).
- Thelypteris millarae* (Holttum) Christenh., comb. nov.** Basionym: *Pronephrium millarae* Holttum, *Blumea* 20: 115. 1972.
- Thelypteris minahassae* (Holttum) Christenh., comb. nov.** Basionym: *Pronephrium minahassae* Holttum, *Blumea* 20: 119. 1972.
- Thelypteris minasmorgulensis* Christenh., nom. nov.** Replaced synonym: *Cyclosorus castaneus* A.R.Sm. & Lorence, *PhytoKeys* 4: 39. 2011, not: *Thelypteris*

*castanea* (Tagawa) Ching. Etymology: Named for Minas Morgul (Tower of Black Sorcery) a fictional city in Gondor (Tolkien, 1937–1955).

***Theleypteris minastirithensis* Christenh., nom. nov.**

Replaced synonym: *Cyclosorus christii* Copel., *Fern Fl. Philipp.* 2: 362. 1960, not: *Theleypteris christii* (C.Chr.) C.F.Reed. Etymology: Named for Minas Tirith (Tower of Guard), a fictional city and the heavily fortified capital of Gondor (Tolkien, 1937–1955).

***Theleypteris mindorensis* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos mindorensis* Holttum, *Kalikasan* 4: 54. 1975.

***Theleypteris mingchegensis* (Ching) Christenh., comb. nov.** Basionym: *Dictyocline mingchegensis* Ching, *Acta Phytotax. Sin.* 8: 334. 1963.

***Theleypteris mingendensis* (Gilli) Christenh., comb. nov.** Basionym: *Lastrea mingendensis* Gilli, *Ann. Naturhist. Mus. Wien* 81: 24. 1978.

***Theleypteris minuscula* (Maxon) Christenh., comb. nov.** Basionym: *Dryopteris minuscula* Maxon, *Bull. Misc. Inform. Kew* 1932: 135. 1932.

***Theleypteris mjobergii* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos mjobergii* Holttum, *Fl. Males.*, Ser. 2, *Pterid. I*: 494. 1982.

***Theleypteris modesta* (Holttum) Christenh., comb. nov.** Basionym: *Christella modesta* Holttum, *J. S. African Bot.* 40: 144. 1974.

***Theleypteris mordorica* Christenh., nom. nov.** Replaced synonym: *Dictyocline sagittifolia* Ching, *Acta Phytotax. Sin.* 8: 335. 1963, not: *Theleypteris sagittifolia* (Blume) C.F.Reed. Etymology: Named for the fictional land Mordor (Black Land) in southwestern Middle-earth (Tolkien, 1937–1955).

***Theleypteris moriana* Christenh., nom. nov.** Replaced synonym: *Cyclosorus attenuatus* Ching ex K.H.Shing, *Fl. Reipubl. Sin.* 4: 341. 1999. Replaced synonym: *Cyclosorus mollissimus* Ching ex K.H.Shing, *Fl. Reipubl. Sin.* 4: 347. 1999, not: *Theleypteris attenuata* (Kuntze) C.V.Morton, nor: *Theleypteris mollissima* (Kunze) Thapa. Etymology: Named for a fictional, large underground tunnel complex carved out of the Misty Mountains in Middle-earth (Tolkien, 1937–1955).

***Theleypteris morotaiensis* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos morotaiensis* Holttum, *Fl. Males.*, Ser. 2, *Pterid. I*: 453. 1982.

***Theleypteris moseleyi* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos moseleyi* Holttum, *Fl. Males.*, Ser. 2, *Pterid. I*: 460. 1982.

***Theleypteris muluensis* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos muluensis* Holttum, *Fl. Males.*, Ser. 2, *Pterid. I*: 499. 1982.

***Theleypteris muminorum* Christenh., nom. nov.** Replaced synonym: *Aspidium affine* Blume, *Enum.*

*Pl. Javae* 2: 148. 1828, not: *Theleypteris affinis* (C.Presl) C.V.Morton. Etymology: Named for the Moomins (or Mumins in Swedish), main characters in the Moomin valley stories by Tove Jansson (1945–1970).

***Theleypteris muminmammae* Christenh., nom. nov.**

Replaced synonym: *Cyclosorus elatus* Ching ex K.H.Shing, *Fl. Reipubl. Popularis Sin.* 4: 342. 1999, not: *Theleypteris elata* Schelpe, nor: *Cyclosorus elatus* (Mett. ex Kuhn) Alston, *nom. illeg.* Etymology: Named for Moominmamma (Muminmamma in Swedish), mother of the main character in the Moominvalley stories by Tove Jansson (1945–1970).

***Theleypteris murkelensis* (M.Kato) Christenh., comb. nov.**

Basionym: *Plesioneuron murkelense* M.Kato, *Bull. Natl. Mus. Nat. Sci., Tokyo, B* 33: 20. 2007.

***Theleypteris my* Christenh., nom. nov.** Replaced synonym: *Aspidium glandulosum* Blume, *Enum. Pl. Javae* 2: 144. 1828, not: *Theleypteris glandulosa* (Desv.) Proctor. Etymology: Named for Little My, a mischievous little girl in the Moominvalley stories by Tove Jansson (1945–1970).

***Theleypteris nakaikeana* (R.D.Dixit & Balkrishna) Christenh., comb. nov.** Basionym: *Pronephrium nakaikeanum* R.D.Dixit & Balkrishna, *Indian Fern J.* 7: 2. 1990.

***Theleypteris nakaikei* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos nakaikei* Holttum, *Fl. Males.*, Ser. 2, *Pterid. I*: 482. 1982.

***Theleypteris nanxiensis* (Ching ex K.H.Shing) Christenh., comb. nov.** Basionym: *Cyclosorus nanxiensis* Ching ex K.H.Shing, *Fl. Reipubl. Popularis Sin.* 4: 343. 1999.

***Theleypteris nazgulorum* Christenh., nom. nov.** Replaced synonym: *Parathelypteris chingii* K.H.Shing & J.F.Cheng, *Jiangxi Sci.* 8: 44. 1990, not: *Theleypteris chingii* (Z.Y.Liu) Christenh. Etymology: Named for the Nazgûl, Ringwraiths or Black Riders, nine servants of Sauron in Tolkien's (1954–1955) Middle-earth legendarium.

***Theleypteris neohibernica* Christenh., nom. nov.** Replaced synonym: *Christella minima* Holttum, *Kew Bull.* 31: 304. 1976, not: *Theleypteris minima* A.R.Sm. & M.Kessler. Etymology: Named for New Ireland, where this species is found.

***Theleypteris nigrescens* (Ching ex Shing) Christenh., comb. nov.** Basionym: *Parathelypteris nigrescens* Ching ex K.H.Shing, *Fl. Reipubl. Popularis Sin.* 4: 321. 1999.

***Theleypteris nigricans* (Salino & T.E.Almeida) Christenh., comb. nov.** Basionym: *Goniopteris nigricans* Salino & T.E.Almeida, *PhytoKeys* 57: 41. 2015.

***Theleypteris norrisii* (Rosenst.) Christenh., comb. nov.** Basionym: *Dryopteris norrisii* Rosenst., *Meded. Rijks-Herb.* 31: 8. 1917.

***Thelypteris novae-brittanniae* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos novae-brittanniae* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 477. 1982.

***Thelypteris novae-caledoniae* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris novae-caledoniae* Holttum, *Blumea* 21: 313. 1973.

***Thelypteris nudisora* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos nudisorus* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 476. 1982.

***Thelypteris numenorica* Christenh., nom. nov.** Replaced synonym: *Glaphyropteridopsis villosa* Ching & W.M.Chu, *Fl. Reipubl. Popularis Sin.* 4: 325. 1999, not: *Thelypteris villosa* (Link) C.F.Reed. Etymology: Named for Númenor or Westernesse, a fictional, large island to the west of Middle-earth in Tolkien (1937–1955).

***Thelypteris obliqua* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris obliqua* Holttum, *Blumea* 21: 309. 1973.

***Thelypteris omatiana* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos omatianus* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 483. 1982.

***Thelypteris orientalis* (Ching ex K.H.Shing) Christenh., comb. nov.** Basionym: *Cyclosorus orientalis* Ching ex K.H.Shing, *Fl. Reipubl. Popularis Sin.* 4: 332. 1999.

***Thelypteris orizabae* (Fée) Christenh., comb. nov.** Basionym: *Aspidium orizabae* Fée ex E.Fourn., *Mexic. Pl.* 1: 95. 1872.

***Thelypteris pallida* (Ching & W.M.Chu) Christenh., comb. nov.** Basionym: *Glaphyropteridopsis pallida* Ching & W.M.Chu, *Fl. Reipubl. Popularis Sin.* 4: 325. 1999.

***Thelypteris pandeorum* Christenh., nom. nov.** Replaced synonym: *Pronephrium kumaunicum* P.C.Pande & H.C.Pande, *Ill. Fern Fl. Kumaon Himalaya* 1: 180. 2003, not: *Thelypteris ×kumaunica* (Holttum) Fraser-Jenk. Etymology: Named for Indian botanists P.C. Pande and H.C. Pande, who first described this species.

***Thelypteris panigrahi* Christenh., nom. nov.** Replaced synonym: *Metathelypteris krameri* Sarn.Singh & Panigrahi, *Ferns & Fern-Allies Arunachal Pradesh* 2: 716. 2005, not: *Thelypteris krameri* (Sarn.Singh & Panigrahi) Christenh. Etymology: Named for Gopinath Panigrahi, who first described this species.

***Thelypteris papuana* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris papuana* Holttum, *Blumea* 21: 311. 1973.

***Thelypteris paracuminata* (Ching ex K.H.Shing & J.F.Cheng) Christenh., comb. nov.** Basionym: *Cyclosorus paracuminatus* Ching ex K.H.Shing & J.F.Cheng, *Jiangxi Sci* 8(3): 46. 1990.

***Thelypteris paraochthodes* (Ching ex K.H.Shing & J.E.Cheng) Christenh., comb. nov.** Basionym: *Pseudocyclosorus paraochthodes* Ching ex K.H.Shing & J.E.Cheng, *Jiangxi Sci.* 8(3): 43. 1990.

***Thelypteris paraphysophora* (Alderw.) Christenh., comb. nov.** Basionym: *Dryopteris paraphysophora* Alderw., *Bull. Jard. Bot. Buitenzorg* 2: 143. 1920.

***Thelypteris parksii* (Ballard) Christenh., comb. nov.** Basionym: *Dryopteris parksii* F.Ballard, *Bull. Misc. Inform. Kew* 1937(6): 347. 1937.

***Thelypteris parvifolia* (Ching) Christenh., comb. nov.** Basionym: *Cyclosorus parvifolius* Ching, *Fl. Fujianica* 1: 155. 1982.

***Thelypteris parviloba* (Ching & K.H.Shing ex K.H.Shing) Christenh., comb. nov.** Basionym: *Cyclosorus parvilobus* Ching, *Fl. Reipubl. Popularis Sin.* 4: 338. 1999.

***Thelypteris patentipinna* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris patentipinna* Holttum, *Blumea* 21: 307. 1973.

***Thelypteris pauciloba* (Ching ex K.H.Shing) Christenh., comb. nov.** Basionym: *Parathelypteris pauciloba* Ching ex K.H.Shing, *Fl. Reipubl. Popularis Sin.* 4: 321. 1999.

***Thelypteris paucipaleata* (Holttum) Christenh., comb. nov.** Basionym: *Chingia paucipaleata* Holttum, *Kalikasan* 3: 29. 1974.

***Thelypteris pauciserrata* (Ching & C.F.Zhang) Christenh., comb. nov.** Basionym: *Cyclosorus pauciserratus* Ching & C.F.Zhang, *Bull. Bot. Res., Harbin* 3: 8. 1983.

***Thelypteris peekelii* (Alderw.) Christenh., comb. nov.** Basionym: *Dryopteris peekelii* Alderw., *Bull. Dépt. Agric. Indes Néerl.* 18: 7. 1908.

***Thelypteris peltata* (Alderw.) Christenh., comb. nov.** Basionym: *Dryopteris peltata* Alderw., *Bull. Jard. Bot. Buitenzorg* ser. 2, 16: 12. 1914.

***Thelypteris pendens* (D.D.Palmer) Christenh., comb. nov.** Basionym: *Pneumatopteris pendens* D.D.Palmer, *Amer. Fern J.* 95: 81. 2005.

***Thelypteris peramelensis* (Holttum) Christenh., comb. nov.** Basionym: *Pronephrium peramelense* Holttum, *Blumea* 20: 115. 1972.

***Thelypteris peregrinii* Christenh., nom. nov.** Replaced synonym: *Sphaerostephanos exindusiatus* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 463. 1982, not: *Thelypteris exindusiatu* W.H.Wagner. Etymology: Named for the hobbit Peregrin Took or Pippin, who together with his cousin Merry Brandybuck joined the Fellowship of the Ring in Tolkien (1937–1955).

***Thelypteris pergamacea* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris pergamacea* Holttum, *Blumea* 21: 315. 1973.

***Thelypteris perrigida* (Alderw.) Christenh., comb. nov.**  
Basionym: *Phegopteris perrigida* Alderw., *Bull. Jard. Bot. Buitenzorg ser. 2, XVI*: 27. 1914.

***Thelypteris persquamifera* (Alderw.) Christenh., comb. nov.**  
Basionym: *Dryopteris persquamifera* Alderw., *Bull. Jard. Bot. Buitenzorg* 16: 10. 1914.

***Thelypteris petiolulata* (Ching ex K.H.Shing) Christenh., comb. nov.**  
Basionym: *Metathelypteris petiolulata* Ching ex K.H.Shing, *Fl. Reipubl. Popularis Sin.* 4: 321. 1999.

***Thelypteris phanerophlebia* (Baker) Christenh., comb. nov.**  
Basionym: *Nephrodium phanerophlebium* Baker, *Syn. Filic.*, ed. 2: 494. 1874.

***Thelypteris platyloba* (Holttum) Christenh., comb. nov.**  
Basionym: *Plesioneuron platylobum* Holttum, *Blumea* 22: 246. 1975.

***Thelypteris plurivenosa* (Holttum) Christenh., comb. nov.**  
Basionym: *Sphaerostephanos plurivenosus* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 496. 1982.

***Thelypteris polisiana* (Holttum) Christenh., comb. nov.**  
Basionym: *Sphaerostephanos polisianus* Holttum, *Kalikasan* 4: 65. 1975.

***Thelypteris polyotica* Christenh., nom. nov.** Replaced synonym: *Christella multiauriculata* Punetha, *J. Indian Bot. Soc.* 69: 177. 1990, not: *Thelypteris multicaudata* (Copel.) C.F.Reed. Etymology: From Greek, meaning 'many eared' a translation of the Latin epithet.

***Thelypteris posthumi* (Holttum) Christenh., comb. nov.**  
Basionym: *Sphaerostephanos posthumi* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 493. 1982, as 'posthumii', but named for Posthumus, hence only one i is needed.

***Thelypteris potamia* (Holttum) Christenh., comb. nov.**  
Basionym: *Sphaerostephanos potamios* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 502. 1982.

***Thelypteris pricei* (Holttum) Christenh., comb. nov.**  
Basionym: *Chingia pricei* Holttum, *Kalikasan* 3: 22. 1974.

***Thelypteris pseudoacuminata* (Panigrahi & Sarn. Singh) Christenh., comb. nov.** Basionym: *Cyclosorus pseudoacuminatus* Panigrahi & Sarn.Singh, *Ferns & Fern-Allies Arunachal Pradesh* 2: 696. 2005.

***Thelypteris pseudoarida* (Ching ex K.H.Shing) Christenh., comb. nov.** Basionym: *Cyclosorus pseudoaridus* Ching ex K.H.Shing, *Fl. Reipubl. Popularis Sin.* 4: 349. 1999.

***Thelypteris pseudobalanseae* (Panigrahi & Sarn.Sing) Christenh., comb. nov.** Basionym: *Cyclosorus pseudobalanseae* Panigrahi & Sarn.Singh, *Ferns & Fern-Allies Arunachal Pradesh* 2: 699. 2005.

***Thelypteris pseudocuneata* (Ching ex K.H.Shing) Christenh., comb. nov.** Basionym: *Cyclosorus pseudocuneatus* Ching ex K.H.Shing, *Fl. Reipubl. Popularis Sin.* 4: 348. 1999.

***Thelypteris pseudofalciloba* (W.M.Chu) Christenh., comb. nov.** Basionym: *Pseudocyclosorus pseudofalcilobus* W.M.Chu, *Acta Bot. Yunnan.*, Suppl. 5: 46. 1992.

***Thelypteris pseudomegaphylla* (Alderw.) Christenh., comb. nov.** Basionym: *Dryopteris pseudomegaphylla* Alderw., *Malay. Ferns Suppl.*: 180. 1917.

***Thelypteris pseudorepens* (Ching ex K.H.Shing) Christenh., comb. nov.** Basionym: *Pseudocyclosorus pseudorepens* Ching ex K.H.Shing ex Ching, *Acta Phytotax. Sin.* 31: 571. 1993.

***Thelypteris psilophylla* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris psilophylla* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 427. 1982.

***Thelypteris pullei* (Holttum) Christenh., comb. nov.** Basionym: *Plesioneuron pullei* Holttum, *Blumea* 22: 236. 1975.

***Thelypteris pullenii* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos pullenii* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 480. 1982.

***Thelypteris pycnosora* (C.Chr.) Christenh., comb. nov.** Basionym: *Dryopteris pycnosora* C.Chr., *Bull. Bishop Mus.* 177: 83. 1943.

***Thelypteris pygmaea* (Ching & C.F.Zhang) Christenh., comb. nov.** Basionym: *Cyclosorus pygmaeus* Ching & C.F.Zhang, *Bull. Bot. Res.*, Harbin 3: 5. 1983.

***Thelypteris qingchengensis* (Y.X.Lin) Christenh., comb. nov.** Basionym: *Pseudocyclosorus qingchengensis* Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 329. 1999.

***Thelypteris qinlingensis* (Ching ex K.H.Shing) Christenh., comb. nov.** Basionym: *Parathelypteris qinlingensis* Ching ex K.H.Shing, *Fl. Reipubl. Popularis Sin.* 4: 320. 1999.

***Thelypteris queenslandica* (Holttum) Christenh., comb. nov.** Basionym: *Amphineuron queenslandicum* Holttum, *Kew Bull.* 41: 518. 1986.

***Thelypteris rechingeri* (Holttum) Christenh., comb. nov.** Basionym: *Parathelypteris rechingeri* Holttum, *Allertonia* 1: 192. 1977.

***Thelypteris recondita* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos reconditus* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 472. 1982.

***Thelypteris reineckeii* (C.Chr.) Christenh., comb. nov.** Basionym: *Dryopteris reineckeii* C.Chr., *Bull. Bishop Mus.* 177: 90. 1943.

***Thelypteris rex* Christenh., nom. nov.** Replaced synonym: *Pronephrium macrophyllum* Ching ex Y.X.Lin, *Fl. Reipubl. Pop. Sin.* 4: 352. 1999, not: *Thelypteris macrophylla* (Kunze) C.V.Morton. Etymology: Named the king, rex, due to its large leave size.

***Thelypteris richardsii* (Baker) Christenh., comb. nov.** Basionym: *Nephrodium richardsii* Baker, *Syn. Filic.*, ed. 2: 494. 1874.

***Thelypteris rigidiloba* (Holttum) Christenh., comb. nov.** Basionym: *Plesioneuron rigidilobum* Holttum, *Blumea* 22: 248. 1975.

***Thelypteris rivendellensis* Christenh., nom. nov.** Replaced synonym: *Leptogramma celebica* Ching, *Sinensis* 7: 99. 1936, not: *Thelypteris celebica* (Baker) C.F.Reed. Etymology: Named for the fictional Elven realm of Rivendell in Middle-earth (Tolkien, 1937–1955).

***Thelypteris rohanica* Christenh., nom. nov.** Replaced synonym: *Glyphyropteridopsis glabrata* Ching & W.M.Chu ex Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 325. 1999, not: *Thelypteris glabrata* (Mett. ex Kuhn) Tardieu. Etymology: Named for the fictional kingdom of Rohan in Middle-earth (Tolkien, 1937–1955).

***Thelypteris royenii* (Holttum) Christenh., comb. nov.** Basionym: *Plesioneuron royenii* Holttum, *Blumea* 22: 240. 1975.

***Thelypteris rufescens* (Holttum) Christenh., comb. nov.** Basionym: *Mesophlebion rufescens* Holttum, *Blumea* 22: 230. 1975.

***Thelypteris salinoi* (I.O.Moura & L.C.Moura) Christenh., comb. nov.** Basionym: *Goniopteris salinoi* I.O.Moura & L.C.Moura, *Brittonia* 68: 452. 2016.

***Thelypteris samwisei* Christenh., nom. nov.** Replaced synonym: *Stegnogramma latipinna* Ching ex Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 350. 1999, not: *Thelypteris latipinna* (Benth.) K.Iwats. Etymology: Named for the hobbit Samwise Gamgee, a fictional character who joined the Fellowship of the Ring in Tolkien's (1937–1955) legendarium.

***Thelypteris sandsii* (Holttum) Christenh., comb. nov.** Basionym: *Plesioneuron sandsii* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* 2: 407. 1982.

***Thelypteris santomasii* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos santomasii* Holttum, *Kalikasan* 4: 62 (1975).

***Thelypteris sarasinorum* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos sarasinorum* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* 1: 498. 1982.

***Thelypteris saruman* Christenh., nom. nov.** Replaced synonym: *Pronephrium hirsutum* Ching ex Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 351. 1999, as 'Pronrphrium hirsutum', not: *Thelypteris hirsuta* (Kunze ex Mett.) Christenh. Etymology: Named for the wizard Saruman the White, a fictional character in the Middle-earth legendarium (Tolkien 1937–1955).

***Thelypteris sauron* Christenh., nom. nov.** Replaced synonym: *Lastrea attenuata* Brack., *U.S. Expl. Exped.*, *Filic.* 16: 193. 1854, not: *Thelypteris attenuata* (Kuntze) C.V.Morton. Etymology: Named for fictional character Sauron the Necromancer, the main antagonist in the Middle-earth legendarium (Tolkien, 1937–1955).

***Thelypteris scandens* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos scandens* Holttum, *Allertonia* 1: 211. 1977.

***Thelypteris scopulorum* (Holttum) Christenh., comb. nov.** Basionym: *Pronephrium scopulorum* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* 1: 532. 1982.

***Thelypteris seidleri* (Salino) Christenh., comb. nov.** Basionym: *Goniopteris seidleri* Salino, *Phytotaxa* 255: 249. 2016.

***Thelypteris semicordata* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos semicordatus* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* 1: 486. 1982.

***Thelypteris semimetralis* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos semimetralis* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* 1: 486. 1982.

***Thelypteris septempedalis* (Alston) Christenh., comb. nov.** Basionym: *Dryopteris septempedalis* Alston, *J. Bot.* 78: 227. 1940.

***Thelypteris seramensis* (M.Kato) Christenh., comb. nov.** Basionym: *Coryphopteris seramensis* M.Kato, *Bull. Natl. Mus. Nat. Sci., Tokyo*, B 33: 18. 2007.

***Thelypteris setosa* (Y.X.Lin) Christenh., comb. nov.** Basionym: *Pronephrium setosum* Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 352. 1999.

***Thelypteris shadowfax* Christenh., nom. nov.** Replaced synonym: *Nephrodium canum* Baker, *Syn. Filic.*: 267. 1867, not: *Thelypteris cana* (J.Sm.) Ching. Etymology: Named for the fictional horse Shadowfax of Rohan, chief of the Mearas in the Middle-earth legendarium (Tolkien, 1937–1955).

***Thelypteris shelob* Christenh., nom. nov.** Replaced synonym: *Pneumatopteris dilatata* Holttum, *Blumea* 33: 401. 1988, not: *Thelypteris dilatata* House. Etymology: Named for Shelob, a fictional giant spider in the Middle-earth legendarium (Tolkien, 1937–1955).

***Thelypteris shimenensis* (K.H.Shing & C.M.Zhang) Christenh., comb. nov.** Basionym: *Cyclosorus shimenensis* K.H.Shing & C.M.Zhang, *Keys Vasc. Pl. Wuling Mts.*: 565. 1995.

***Thelypteris shirensis* Christenh., nom. nov.** Replaced synonym: *Christella nana* Holttum, *Kew Bull.* 31: 304. 1976, not: *Thelypteris nana* A.Rojas. Etymology: Named for the Shire, a fictional land in Middle-earth (Tolkien, 1937–1955).

***Thelypteris shuangbaiensis* (Ching ex Y.X.Lin) Christenh., comb. nov.** Basionym: *Pseudocyclosorus shuangbaiensis* Ching ex Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 327. 1999.

***Thelypteris sibeliana* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris sibeliana* Holttum, *Blumea* 21: 301. 1973.

***Thelypteris sichuanensis* (Y.X.Lin) Christenh., comb. nov.** Basionym: *Glyphyropteridopsis sichuanensis* Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 131, 324. 1999, as 'sichanensis'.

***Thelypteris ×silmarillion* Christenh., nom. nov.** Replaced synonym: *Pronephrium ×interruptum* Holttum, *Blumea* 33: 403. 1988, not: *Thelypteris interrupta* (Willd.) B.C.Stone. Etymology: Named for *The Silmarillion*, a collection of mythopoeic works by English writer J. R. R. Tolkien, edited and published posthumously by his son, Christopher Tolkien (1977).

***Thelypteris sinensis* (Ching & W.M.Chu) Christenh., comb. nov.** Basionym: *Craspedosorus sinensis* Ching & W.M.Chu, *Acta Phytotax. Sin.* 16: 26. 1978.

***Thelypteris sinica* (Ching ex Y.X.Lin) Christenh., comb. nov.** Basionym: *Leptogramma sinica* Ching ex Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 323. 1999.

***Thelypteris sinodentata* (Ching Z.Y.Liu) Christenh., comb. nov.** Basionym: *Cyclosorus sinodentatus* Ching & Z.Y.Liu, *Bull. Bot. Res., Harbin* 4: 13. 1984.

***Thelypteris smeagol* Christenh., nom. nov.** Replaced synonym: *Cyclosorus intermedius* W.C.Shih & J.L.Tsai, *J. Sci. Engin.* 24: 8. 1987, not: *Thelypteris intermedia* (Muhl. ex Willd.) House. Etymology: Named for fictional character Sméagol, a Stoor Hobbit of the River Folk, who came upon the One Ring (my precious), which corrupted him into Gollum (Tolkien, 1937–1955).

***Thelypteris smithii* (Salino) Christenh., comb. nov.** Basionym: *Goniopteris smithii* Salino, *Phytotaxa* 255: 251. 2016.

***Thelypteris snufkin* Christenh., nom. nov.** Replaced synonym: *Chingia urens* Holttum, *Kalikasan* 3: 28. 1974, not: *Thelypteris urens* (Rosenst.) C.F.Reed. Etymology: Named for Snufkin (English), Moomin's best friend in the Moominvalley stories by Tove Jansson (1945–1970).

***Thelypteris solsonica* (Holttum) Christenh., comb. nov.** Basionym: *Pronephrium solsonicum* Holttum, *Kalikasan* 3: 197. 1974.

***Thelypteris soluta* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos solutus* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 459. 1982.

***Thelypteris splendens* (Ching) Christenh., comb. nov.** Basionym: *Glyphyropteridopsis splendens* Ching, *Acta Phytotax. Sin.* 8: 322. 1963.

***Thelypteris squamatella* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos squamatellus* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 497. 1982.

***Thelypteris stenura* (Holttum) Christenh., comb. nov.** Basionym: *Plesioneuron stenura* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 408. 1982.

***Thelypteris stresemannii* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos stresemannii* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 490. 1982.

***Thelypteris subacuta* (Ching) Christenh., comb. nov.** Basionym: *Cyclosorus subacutus* Ching, *Fl. Fujianica* 1: 598. 1982.

***Thelypteris subcalcarata* (Alderw.) Christenh., comb. & stat. nov.** Basionym: *Phegopteris totta* Mett. var. *subcalcarata* Alderw., *Malay. Ferns Suppl.* 1: 515. 1916.

***Thelypteris subcanescens* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos subcanescens* Holttum, *Blumea* 33: 404. 1988.

***Thelypteris subcaudipinna* (Sarn.Singh & Panigrahi) Christenh., comb. nov.** Basionym: *Trigonospora subcaudipinna* Sarn.Singh & Panigrahi, *Ferns & Fern-Allies Arunachal Pradesh* 2: 777. 2005.

***Thelypteris subcordata* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos subcordatus* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 469. 1982.

***Thelypteris subdentata* (Holttum) Christenh., comb. nov.** Basionym: *Christella subdentata* Holttum, *Kew Bull.* 31: 335. 1976.

***Thelypteris subfalciloba* (K.H.Shing ex Ching) Christenh., comb. nov.** Basionym: *Pseudocyclosorus subfalcilobus* K.H.Shing ex Ching, *Acta Phytotax. Sin.* 31: 571. 1993.

***Thelypteris subglabra* (Holttum) Christenh., comb. nov.** Basionym: *Plesioneuron subglabrum* Holttum, *Blumea* 22: 243. 1975.

***Thelypteris subjuncta* (Baker) Christenh., comb. nov.** Basionym: *Nephrodium subjunctum* Baker, *Ann. Bot. (Oxford)* 5: 321. 1901.

***Thelypteris subopposita* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos suboppositus* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 498. 1982.

***Thelypteris subornatipes* (Sarn.Singh & Panigrahi) Christenh., comb. nov.** Basionym: *Pseudocyclosorus subornatipes* Sarn.Singh & Panigrahi, *Ferns & Fern-Allies Arunachal Pradesh* 2: 746. 2005.

***Thelypteris subterminalis* (Holttum) Christenh., comb. nov.** Basionym: *Plesioneuron subterminale* Holttum, *Blumea* 22: 241. 1975.

***Thelypteris subtruncata* (Bory) Christenh., comb. nov.** Basionym: *Polypodium subtruncatum* Bory in Bélanger, *Voy. Indes Or.* 2: 32. 1833.

***Thelypteris sudeistica* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos sudesticus* Holttum, *Fl. Males.*, Ser. 2, *Pterid.* I: 448. 1982.

***Thelypteris sulawesiensis* (K.Iwats.) Christenh., comb. & stat. nov.** Basionym: *Pronephrium rubicundum* (Alderw.) Holttum subsp. *sulawesiense* K.Iwats., *Acta Phytotax. Geobot.* 28: 162. 1977.

- Thelypteris sumbawensis* (C.Chr.) Christenh., comb. nov.** Basionym: *Dryopteris sumbawensis* C.Chr., *Hedwigia* 74: 231. 1934.
- Thelypteris tahitensis* (Holttum) Christenh., comb. nov.** Basionym: *Plesioneuron tahitense* Holttum, *Blumea* 22: 241. 1975. (Figures 5B-C)
- Thelypteris tandikatensis* (Alderw.) Christenh., comb. nov.** Basionym: *Dryopteris tandikatensis* Alderw., *Bull. Jard. Bot. Buitenzorg Ser. 2, XI*: 11. 1913.
- Thelypteris tarningensis* (Ching) Christenh., comb. nov.** Basionym: *Cyclosorus tarningensis* Ching, *Wuyi Sci. J.* 1: 4. 1981.
- Thelypteris telefominica* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos telefominicus* Holttum, *Fl. Males., Ser. 2, Pterid.* I: 499. 1982.
- Thelypteris tenerior* (Holttum) Christenh., comb. nov.** Basionym: *Chingia tenerior* Holttum, *Fl. Males., Ser. 2, Pterid.* I: 395. 1982.
- Thelypteris tenggerensis* (Holttum) Christenh., comb. nov.** Basionym: *Pseudocyclosorus tenggerensis* Holttum, *Reinwardtia* 8: 500. 1974.
- Thelypteris thailandica* (S.Linds.) Christenh., comb. nov.** Basionym: *Cyclosorus thailandicus* S.Linds., *Thai Forest Bull., Bot.* 36: 47. 2008.
- Thelypteris theodenii* Christenh., nom. nov.** Replaced synonym: *Pseudocyclosorus caudatus* Holttum, *Blumea* 13: 133. 1965, not: *Thelypteris caudata* (Ching) C.F.Reed. Etymology: Named for Théoden, King of Rohan, a fictional character in the Middle-earth legendarium (Tolkien, 1945–1955).
- Thelypteris thysanoides* (Holttum) Christenh., comb. nov.** Basionym: *Pronephrium thysanoides* Holttum, *Fl. Males., Ser. 2, Pterid.* I: 525. 1982.
- Thelypteris tibangensis* (C.Chr.) Christenh., comb. nov.** Basionym: *Dryopteris tibangensis* C.Chr., *Dansk Bot. Ark.* 9: 66. 1937.
- Thelypteris tildeniae* (Holttum) Christenh., comb. nov.** Basionym: *Amphineuron tildeniae* Holttum, *Blumea* 23: 214. 1977.
- Thelypteris timorensis* (Holttum) Christenh., comb. nov.** Basionym: *Christella timorensis* Holttum, *Kew Bull.* 31: 316. 1976.
- Thelypteris tobaica* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris tobaica* Holttum, *Blumea* 21: 316. 1973.
- Thelypteris torrentis* (Ching ex Y.X.Lin) Christenh., comb. nov.** Basionym: *Pseudocyclosorus torrentis* Ching ex Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 326. 1999.
- Thelypteris trachyphylla* (Holttum) Christenh., comb. nov.** Basionym: *Pronephrium trachyphyllum* Holttum, *Fl. Males., Ser. 2, Pterid.* I: 525. 1982.
- Thelypteris translucens* (Holttum) Christenh., comb. nov.** Basionym: *Plesioneuron translucens* Holttum,
- Blumea* 22: 240. 1975.
- Thelypteris treebeardii* Christenh., nom. nov.** Replaced synonym: *Pneumatopteris sandwicensis* Brack., *U.S. Expl. Exped., Filic.* 16: 26. 1854, not: *Thelypteris sandwicensis* (Hook. & Arn.) Fosb. Etymology: Named for the Ent Treebeard (or Fangorn), a fictional character in the Middle-earth legendarium (Tolkien, 1954–1955).
- Thelypteris triangularis* (R.S.Fern. & Salino) Christenh., comb. nov.** Basionym: *Meniscium triangularis* R.S.Fern. & Salino, *Phytotaxa* 184: 4. 2014.
- Thelypteris trichochlamys* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos trichochlamys* Holttum, *Fl. Males., Ser. 2, Pterid.* I: 465. 1982.
- Thelypteris trimetralis* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos trimetralis* Holttum, *Fl. Males., Ser. 2, Pterid.* I: 451. 1982.
- Thelypteris tsoi* (Ching) Christenh., comb. nov.** Basionym: *Pseudocyclosorus tsoi* Ching, *Fl. Fujianica* 1: 619. 1991.
- Thelypteris uaniensis* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos uaniensis* Holttum, *Fl. Males., Ser. 2, Pterid.* I: 494. 1982.
- Thelypteris unita* (Kunze) Christenh., comb. nov.** Basionym: *Gymnogramma unita* Kunze, *Linnæa* 18: 115. 1844.
- Thelypteris usambarensis* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris usambarensis* Holttum, *Blumea* 21: 312. 1973.
- Thelypteris valinorica* Christenh., nom. nov.** Replaced synonym: *Goniopteris rufis* Ridl., *Trans. Linn. Soc. London, Bot.* 9: 259. 1916, not: *Thelypteris rufis* (Kunze) Proctor. Etymology: Named for the mythical land Valinor, the Undying Lands, in Middle-earth (Tolkien, 1954–1955).
- Thelypteris vandervekenii* (Pic.Serm.) Christenh., comb. nov.** Basionym: *Metathelypteris vandervekenii* Pic.Serm., *Bull. Jard. Bot. Belg.* 53: 272. 1983.
- Thelypteris vaupelii* (C.Chr.) Christenh., comb. nov.** Basionym: *Dryopteris vaupelii* C.Chr., *Bull. Bishop Mus.* 177: 89. 1943.
- Thelypteris veitchii* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos veitchii* Holttum, *Allertonia* 1: 204. 1977.
- Thelypteris versteeghii* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris versteeghii* Holttum, *Blumea* 21: 321. 1973.
- Thelypteris walkeri* (Holttum) Christenh., comb. nov.** Basionym: *Pneumatopteris walkeri* Holttum, *Blumea* 21: 323. 1973.
- Thelypteris wauensis* (Holttum) Christenh., comb. nov.** Basionym: *Sphaerostephanos wauensis* Holttum, *Fl. Males., Ser. 2, Pterid.* I: 505. 1982.
- Thelypteris wenzhouensis* (K.H.Shing & C.F.Zhang)**

- Christenb., comb. nov.** Basionym: *Cyclosorus wenzhouensis* K.H.Shing & C.F.Zhang, *Fl. Reipubl. Popularis Sin.* 4: 234. 1999.
- Thelypteris windischii* (Salino) Christenb., comb. nov.** Basionym: *Goniopteris windischii* Salino, *Phytotaxa* 255: 255. 2016.
- Thelypteris woitapensis* (Holttum) Christenb., comb. nov.** Basionym: *Sphaerostephanos woitapensis* Holttum, *Fl. Males., Ser. 2, Pterid.* I: 483. 1982.
- Thelypteris womersleyi* (Holttum) Christenb., comb. nov.** Basionym: *Pronephrium womersleyi* Holttum, *Blumea* 20: 108. 1972.
- Thelypteris woodlarkensis* (Copel.) Christenb., comb. nov.** Basionym: *Cyathea woodlarkensis* Copel., *Philipp. J. Sci.* C 9: 1. 1914.
- Thelypteris wulingshanensis* (C.M.Zhang) Christenb., comb. nov.** Basionym: *Cyclosorus wulingshanensis* C.M.Zhang, *Keys Vasc. Pl. Wuling Mts:* 567. 1995.
- Thelypteris wuyishanica* (Ching) Christenb., comb. nov.** Basionym: *Metathelypteris wuyishanica* Ching, *Wuyi Sci. J.* 1: 5. 1981.
- Thelypteris xingwenensis* (Ching ex Y.X.Lin) Christenb., comb. nov.** Basionym: *Stegnogramma xingwenensis* Ching ex Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 350. 1999.
- Thelypteris xinpingsensis* (Ching ex Y.X.Lin) Christenb., comb. nov.** Basionym: *Pseudocyclosorus xinpingsensis* Ching ex Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 326. 1999, as 'xinpingesis'.
- Thelypteris yahanensis* (Ching ex Y.X.Lin) Christenb., comb. nov.** Basionym: *Leptogramma yahanensis* Ching ex Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 324. 1999.
- Thelypteris yamawakii* (H.Ito) Christenb., comb. nov.** Basionym: *Cyclosorus yamawakii* H.Ito, *J. Jap. Bot.* 27: 340. 1952.
- Thelypteris yuanjiangensis* (Ching) Christenb., comb. nov.** Basionym: *Cyclosorus yuanjiangensis* Ching, *Fl. Reipubl. Popularis Sin.* 4: 203. 1999.
- Thelypteris yunguiensis* (Ching & Y.X.Lin) Christenb., comb. nov.** Basionym: *Pronephrium yunguiensis* Ching & Y.X.Lin, *Fl. Reipubl. Popularis Sin.* 4: 352. 1999.
- Thelypteris zayuensis* (Ching & S.K.Wu) Christenb., comb. nov.** Basionym: *Pseudocyclosorus zayuensis* Ching & S.K.Wu, *Fl. Xizang.* 1: 168. 1983.
- Thelypteris zhongii* (K.H.Shing) Christenb., comb. nov.** Basionym: *Cyclosorus zhongii* K.H.Shing, *Fl. Reipubl. Popularis Sin.* 4: 231. 1999.
- F24. Polypodiaceae.** References: Ranker et al. (2004), Labiak & Moran (2018).
- Campylopteris albopunctatissimum* (Lellinger)**
- Christenb., comb. nov.** Basionym: *Niphidium albopunctatissimum* Lellinger, *Amer. Fern J.* 62: 109. 1972.
- Campylopteris americanum* (Hook.) Christenb., comb. nov.** Basionym: *Polypodium americanum* Hook., *Sp. Filic.* 5: 54. 1864.
- Campylopteris anocarpos* (Kunze) Christenb., comb. nov.** Basionym: *Polypodium anocarpos* Kunze, *Linnaea* 9: 40. 1834.
- Campylopteris carinatum* (Lellinger) Christenb., comb. nov.** Basionym: *Niphidium carinatum* Lellinger, *Amer. Fern J.* 62: 113. 1972.
- Campylopteris crassifolium* (L.) Christenb., comb. nov.** Basionym: *Polypodium crassifolium* L., *Sp. Pl.* 2: 1083. 1753. (Figure 5D)
- Campylopteris longifolium* (Cav.) Christenb., comb. nov.** Basionym: *Polypodium longifolium* Cav., *Descr. Pl.*: 245. 1802.
- Campylopteris macbridei* (Lellinger) Christenb., comb. nov.** Basionym: *Niphidium macbridei* Lellinger, *Amer. Fern J.* 62: 117. 1972.
- Campylopteris mortonianum* (Lellinger) Christenb., comb. nov.** Basionym: *Niphidium mortonianum* Lellinger, *Amer. Fern J.* 62: 115. 1972.
- Campylopteris nidulare* (Rosenst.) Christenb., comb. & stat. nov.** Basionym: *Polypodium crassifolium* L. var. *nidulare* Rosenst., *Repert. Sp. Nov. Regni Veg.* 22: 18. 1925.
- Campylopteris rufosquamatum* (Lellinger)** Christenb., comb. nov.
- Basionym: *Niphidium rufosquamatum* Lellinger, *Amer. Fern J.* 62: 115. 1972.
- Campylopteris vittaria* (Mett.) Christenb., comb. nov.** Basionym: *Polypodium vittaria* Mett., *Filic. Lechl.* 1: 8. 1856.
- Draconopteris grandidentata* (Ces) Christenb., comb. nov.** Basionym: *Polypodium dilatatum* Liebm. var. *grandidentatum* Ces., *Atti Accad. Sci. Fis. Nat. Napoli* 7: 27. 1876.
- Dryopteris robur* Christenb., nom. nov.** Replaced synonym: *Aspidium triste* Blume, *Enum. Pl. Javae* 2: 169. 1828, not: *Dryopteris tristis* (Kunze) Kuntze, nor: *Dryopteris stenolepis* (Baker) C.Chr. Etymology: From Latin, *robur*, strength.
- Grammitis abebaion* (Alderw.) Christenb., comb. nov.** Basionym: *Polypodium abebaion* Alderw., *Nova Guinea* 14: 45. 1924.
- Grammitis acrosora* (A.Rojas) Christenb., comb. nov.** Basionym: *Cochlidium acrosorum* A.Rojas, *Mét. Ecol. Sist.* 2(2): 14. 2007.
- Grammitis aethiopica* (Pic.Serm.) Christenb., comb. nov.** Basionym: *Xiphopteris aethiopica* Pic.Serm., *Webbia* 27: 450. 1972.
- Grammitis affinis* (Labiak) Christenb., comb. nov.**

- Basionym: *Lellingeria affinis* Labiak, Fl. Neotrop. Monogr. 111: 14. 2013, not *Grammitis affinis* Wall., nom. inval. nom. nud.)
- Grammitis alansmithii** (A.Rojas) Christenh., comb. nov. Basionym: *Melpomene alansmithii* A.Rojas, Revista Biol. Trop. 49: 444. 2001.
- Grammitis albicans** (Lehnert) Christenh., comb. nov. Basionym: *Melpomene albicans* Lehnert, Amer. Fern J. 98: 216. 2009.
- Grammitis alboglandulosa** (Bonap.) Christenh., comb. nov. Basionym: *Polypodium alboglandulosum* Bonap., Notes Ptérid. 10: 186. 1920.
- Grammitis allocota** (Alderw.) Christenh., comb. nov. Basionym: *Polypodium allocotum* Alderw., Nova Guinea 14: 47. 1924.
- Grammitis alternidens** (Ces.) Christenh., comb. nov. Basionym: *Polypodium alternidens* Ces., Atti Accad. Sci. Fis. Mat. Napoli 7: 25. 1876.
- Grammitis amplisora** (Labiak) Christenh., comb. nov. Basionym: *Lellingeria amplisora* Labiak, Fl. Neotrop. Monogr. 111: 16. 2013.
- Grammitis anzalea** (Sundue & Lehnert) Christenh., comb. nov. Basionym: *Melpomene anzalea* Sundue & Lehnert, Amer. Fern J. 98: 209. 2009.
- Grammitis ancestralis** (Copel.) Christenh., comb. nov. Basionym: *Prosapta ancestralis* Copel., Leafl. Philipp. Bot. 3: 385. 1910.
- Grammitis arjananaharibensis** (Rakotondr.) Christenh., comb. nov. Basionym: *Zygophlebia arjananaharibensis* Rakotondr., Taxon 55: 147. 2006.
- Grammitis antillensis** (Proctor) Christenh., comb. nov. Basionym: *Grammitis phlegmaria* (J.Sm.) Proctor var. *antillensis* Proctor, Rhodora 68: 467. 1966.
- Grammitis antipodalis** (Copel.) Christenh., comb. nov. Basionym: *Xiphopteris antipodalis* Copel., Univ. Calif. Publ. Bot. 18: 224. 1942.
- Grammitis aoide** Christenh., nom. nov. Replaced synonym: *Lellingeria pumila* Labiak, Brittonia 52: 249. 2000, not: *Grammitis pumila* Sw., nor: *G. pumila* (C.Chr.) Stolze. Etymology: After Αοιδή was was the Boeotian Muse of voice and song in Ancient Greek mythology.
- Grammitis arche** Christenh., nom. nov. Replaced synonym: *Ceradenia maxoniana* L.E.Bishop, Amer. Fern J. 79: 24. 1979, not: *Grammitis maxoniana* Lellinger. Etymology: After Ἀρχή, the Muse of Origins in Ancient Greek mythology.
- Grammitis arthrothrix** (L.E.Bishop & A.R.Sm.) Christenh., comb. nov. Basionym: *Ceradenia arthrothrix* L.E.Bishop & A.R.Sm., Ann. Missouri Bot. Gard. 77: 255. 1990.
- Grammitis ascensionensis** (Hieron.) Christenh., comb. nov. Basionym: *Polypodium ascensionense* Hieron., Hedwigia 44: 93. 1905, not *Grammitis ascensionis* Hook.
- Grammitis asiatica** (Copel.) Christenh., comb. nov. Basionym: *Calymmodon asiaticus* Copel., Philipp. J. Sci. 38: 154. 1929.
- Grammitis asthenophylla** (L.E.Bishop ex A.R.Sm.) Christenh., comb. nov. Basionym: *Ceradenia asthenophylla* L.E.Bishop ex A.R.Sm., Novon 3: 182. 1993.
- Grammitis aulaeifolia** (L.E.Bishop ex A.R.Sm.) Christenh., comb. nov. Basionym: *Ceradenia aulaeifolia* L.E.Bishop ex A.R.Sm., Novon 3: 182. 1993.
- Grammitis auroseiomena** (L.E.Bishop) Christenh., comb. nov. Basionym: *Ceradenia auroseiomena* L.E.Bishop, Amer. Fern J. 79: 18. 1989.
- Grammitis axioche** Christenh., nom. nov. Replaced synonym: *Ascogrammitis tungurahuae* Sundue, Brittonia 62: 391. 2010, not: *Grammitis tunguraguae* (Rosent.) C.V.Morton. Etymology: Αξίοχη, a nymph in Greek mythology.
- Grammitis ayopayana** (M.Kessler & A.R.Sm.) Christenh., comb. nov. Basionym: *Ceradenia ayopayana* M.Kessler & A.R.Sm., Organisms Diversity Evol. 8: 167. 2008.
- Grammitis balslevii** Christenh., nom. nov. Replaced synonym: *Lellingeria paramicola* Labiak, Fl. Neotrop. Monogr. 111: 72. 2013, not: *Grammitis paramicola* L.E.Bishop. Etymology: Named for Henrik Balslev, who collected the type specimen of this species in Ecuador.
- Grammitis barathrophylla** (Baker) Christenh., comb. nov. Basionym: *Polypodium barathrophyllum* Baker, J. Bot. 29: 107. 1891.
- Grammitis beleensis** (Copel.) Christenh., comb. nov. Basionym: *Ctenopteris beleensis* Copel., Univ. Calif. Publ. Bot. 18: 225. 1942.
- Grammitis bipinnatifidum** (Baker) Christenh., comb. nov. Basionym: *Polypodium bipinnatifidum* Baker, J. Bot. 28: 109. 1890.
- Grammitis bivascularis** (M.T.Murillo & A.R.Sm.) Christenh., comb. nov. Basionym: *Luisia bivascularis* M.T.Murillo & A.R.Sm., Novon 13: 313. 2003.
- Grammitis blechnifrons** (Hayata) Christenh., comb. nov. Basionym: *Polypodium decrescens* Christ var. *blechnifrons* Hayata, Icon. Pl. Formosan. 4: 245. 1914.
- Grammitis boivinii** (Mett. ex Kuhn) Christenh., comb. nov. Basionym: *Polypodium boivinii* Mett. ex Kuhn, Filic. Afr.: 146. 1868.
- Grammitis bolobensis** (Brause) Christenh., comb. nov. Basionym: *Polypodium bolobense* Brause, Bot. Jahrb. Syst. 49: 38. 1912.
- Grammitis brachyphlebia** (Baker) Christenh., comb.

- nov.** Basionym: *Polypodium brachyphlebium* Baker, *Ann. Bot. (Oxford)* 8: 129. 1894.
- Grammitis bradeana** (Labiak) Christenh., *comb. nov.*  
Basionym: *Terpsichore bradeana* Labiak, *Brittonia* 52: 251. 2000.
- Grammitis brasiliense** (Rosenst.) Christenh., *comb. & stat. nov.* Basionym: *Polypodium tenuiculum* Fée var. *brasiliense* Rosenst., *Hedwigia* 56: 370. 1915.
- Grammitis brenesii** (A.Rojas) Christenh., *comb. nov.*  
Basionym: *Lellingeria brenesii* A.Rojas, *Lankesteriana* 7: 553. 2007.
- Grammitis brevipes** (C.V.Morton) Christenh., *comb. nov.* Basionym: *Grammitis sodiroi* var. *brevipes* C.V.Morton, *Phytologia* 22: 79. 1971.
- Grammitis brevipubens** (Labiak) Christenh., *comb. nov.* Basionym: *Stenogrammitis brevipubens* Labiak, *Amer. Fern J.* 102: 161. 2012.
- Grammitis brevivenosa** (Alderw.) Christenh., *comb. nov.* Basionym: *Polypodium brevivenosum* Alderw., *Bull. Jard. Bot. Buitenzorg Ser.* 2, 28: 40. 1918.
- Grammitis brooksiæ** (Alderw.) Christenh., *comb. nov.* Basionym: *Polypodium brooksiæ* Alderw., *Bull. Jard. Bot. Buitenzorg Ser.* 2, 23: 19. 1916.
- Grammitis burbridgei** (Baker) Christenh., *comb. nov.* Basionym: *Polypodium burbridgei* Baker, *J. Bot.* 17: 42. 1879.
- Grammitis callichore** Christenh., *nom. nov.* Replaced synonym: *Galactodenia pumila* Sundue & Labiak, *Syst. Bot.* 37: 345. 2012, not: *Grammitis pumila* Sw., nor: *G. pumila* (C.Chr.) Stolze. Etymology: Καλλιχόρη, the nymph that nursed Dionysos in Greek mythology.
- Grammitis calliope** Christenh., *nom. nov.* Replaced synonym: *Ctenopteris bipinnata* Copel., *Univ. Calif. Publ. Bot.* 18: 225. 1942, not: *Grammitis bipinnata* Stolze. Etymology: Καλλόπη, the muse of epic poetry and eloquence in Ancient Greek mythology.
- Grammitis callophylla** (C.H.Wright) Christenh., *comb. nov.* Basionym: *Polypodium callophyllum* C.H.Wright, *Bull. Misc. Inf. Kew* 1909: 362. 1909.
- Grammitis calolepis** (Labiak) Christenh., *comb. nov.* Basionym: *Lellingeria calolepis* Labiak, *Fl. Neotrop. Monogr.* 111: 32. 2013.
- Grammitis canescens** (A.Rojas) Christenh., *comb. nov.* Basionym: *Terpsichore canescens* A.Rojas, *Mét. Ecol. Sist.* 3: 14. 2008.
- Grammitis capillata** (Brause) Christenh., *comb. nov.* Basionym: *Polypodium capillatum* Brause, *Bot. Jahrb. Syst.* 49: 39. 1912.
- Grammitis capillipes** (C.Chr.) Christenh., *comb. nov.* Basionym: *Polypodium capillipes* C.Chr., *Brittonia* 2: 310. 1937.
- Grammitis capit-gorgonis** (Lehnert) Christenh., *comb. nov.* Basionym: *Melpomene capit-gorgonis* Lehnert, *Amer. Fern J.* 98: 219. 2009.
- Grammitis carrascoensis** (M.Kessler & A.R.Sm.) Christenh., *comb. nov.* Basionym: *Lellingeria carrascoensis* M.Kessler & A.R.Sm., *Organisms Diversity Evol.* 8: 169. 2008.
- Grammitis celebica** (Blume) Christenh., *comb. nov.* Basionym: *Polypodium celebicum* Blume, *Enum. Pl. Javæ* 2: 127. 1828.
- Grammitis ceylanica** (Parris) Christenh., *comb. nov.* Basionym: *Prosaptia ceylanica* Parris, *Fern Gaz.* 16: 242. 2002.
- Grammitis circumvallata** (Rosenst.) Christenh., *comb. nov.* Basionym: *Polypodium circumvallatum* Rosenst., *Repert. Spec. Nov. Regni Veg.* 12: 178. 1913.
- Grammitis clathrata** (Sundue & M.Kessler) Christenh., *comb. nov.* Basionym: *Terpsichore clathrata* Sundue & M.Kessler, *Organisms Diversity Evol.* 8: 163. 2008.
- Grammitis clavigera** (A.R.Sm. ex Sundue) Christenh., *comb. nov.* Basionym: *Ascogrammitis clavigera* A.R.Sm. ex Sundue, *Brittonia* 62: 373. 2010.
- Grammitis cleio** Christenh., *nom. nov.* Replaced synonym: *Lellingeria rupestris* Parris, *Kew Bull.* 57: 429. 2002, not: *Grammitis rupestris* Parris. Etymology: Κλειώ, the muse of history in Ancient Greek mythology.
- Grammitis cocosensis** (A.Rojas) Christenh., *comb. nov.* Basionym: *Terpsichore cocosensis* A.Rojas, *Brenesia* 45-46: 47. 1997.
- Grammitis colombiensis** (Sundue) Christenh., *comb. nov.* Basionym: *Ascogrammitis colombiensis* Sundue, *Brittonia* 62: 374. 2010.
- Grammitis comorensis** (Baker) Christenh., *comb. nov.* Basionym: *Polypodium comorense* Baker, *J. Bot.* 15: 72. 1877.
- Grammitis comosa** (L.E.Bishop) Christenh., *comb. nov.* Basionym: *Ceradenia comosa* L.E.Bishop, *Amer. Fern J.* 79: 16. 1989.
- Grammitis congregatifolia** (Alderw.) Christenh., *comb. nov.* Basionym: *Polypodium congregatifolium* Alderw., *Nova Guinea* 14: 47. 1924.
- Grammitis connelli** (Baker) Christenh., *comb. nov.* Basionym: *Polypodium connelli* Baker, *Trans. Linn. Soc. London, Bot. ser.* 2, 6: 82. 1901.
- Grammitis contacta** (Copel.) Christenh., *comb. nov.* Basionym: *Ctenopteris contacta* Copel., *Philipp. J. Sci.* 84: 447. 1956.
- Grammitis contigua** (C.Presl) Christenh., *comb. nov.* Basionym: *Prosaptia contigua* C.Presl, *Tent. Pterid.* 166. 1836.
- Grammitis costaricensis** (Rosenst.) Christenh., *comb. nov.* Basionym: *Polypodium lherminieri* Fée var. *costaricense* Rosenst., *Repert. Spec. Nov. Regni Veg.*

22: 17. 1925.

**Grammitis cryptocarpa** (Copel.) Christenh., comb. nov.

Basionym: *Prosaptia cryptocarpa* Copel., Philipp. J. Sci. 1(Suppl. 2): 158. 1906.

**Grammitis ctenoidea** (Brause) Christenh., comb. nov.

Basionym: *Polypodium ctenoideum* Brause, Bot. Jahrb. Syst. 56: 188. 1920.

**Grammitis curtisiae** (Baker) Christenh., comb. nov.

Basionym: *Polypodium curtisiae* Baker, J. Bot. 19: 367. 1881.

**Grammitis davalliae** (Copel.) Christenh., comb. nov.

Basionym: *Prosaptia davalliae* Copel., Univ. Calif. Publ. Bot. 12: 404. 1931.

**Grammitis decrescens** (Christ) Christenh., comb. nov.

Basionym: *Polypodium decrescens* Christ, Ann. Jard. Bot. Buitenzorg II, 4: 35. 1904.

**Grammitis deltodon** (Baker) Christenh., comb. nov.

Basionym: *Polypodium deltodon* Baker, J. Linn. Soc., Bot. 15: 419. 1876.

**Grammitis deltoideophylla** (Baker) Christenh., comb. nov.

Basionym: *Polypodium deltoideophyllum* Baker, J. Bot. 14: 345. 1876.

**Grammitis depressa** (C.Chr.) Christenh., comb. nov.

Basionym: *Polypodium depressum* C.Chr., Index Filic.: 522. 1906.

**Grammitis dercetis** Christenh., nom. nov.

Replaced synonym: *Lellingeria bishopii* Labiak, Fl. Neotrop. Monogr. 111: 24. 2013, not: *Grammitis bishopii* Stolze. Etymology: Δέρκετης, a nymph in Greek mythology.

**Grammitis devolii** (S.J.Moore, Parris & W.L.Chiou)

Christenh., comb. nov. Basionym: *Xiphopterella devolii* S.J.Moore, Parris & W.L.Chiou, Bot. Stud. (Taipei) 54: 3. 2013.

**Grammitis devoluta** (Baker) Christenh., comb. nov.

Basionym: *Polypodium devolutum* Baker, J. Linn. Soc., Bot. 15: 419. 1876.

**Grammitis diaphana** (Moguel & M.Kessler) Christenh.,

comb. nov. Basionym: *Terpsichore diaphana* Moguel & M.Kessler, Phytotaxa 2: 38. 2009.

**Grammitis dilatata** (Sundue & M.Kessler) Christenh.,

comb. nov. Basionym: *Terpsichore dilatata* Sundue & M.Kessler, Organisms Diversity Evol. 8: 163. 2008.

**Grammitis doniana** (Spreng.) Christenh., comb. nov.

Basionym: *Polypodium donianum* Spreng., Syst. Veg. (ed. 16) 4: 54. 1827.

**Grammitis dryas** Christenh., nom. nov.

Replaced synonym: *Ctenopteris brassii* Copel., Univ. Calif. Publ. Bot. 18: 225. 1942, not: *Grammitis brassii* Copel. Etymology: Δρύας, prince of Thrace, who was killed by his father King Lycurgus (c 820 BC), who mistook him for a grapevine, a divine plant to Dionysos, a cult that King Lycurgus attempted to eradicate.

**Grammitis duriuscula** (Christ) Christenh., comb. nov.

Basionym: *Polypodium duriusculum* Christ, Verh. Nat. Ges. Basel 11: 213. 1895.

**Grammitis ecostata** (Sodiro) Christenh., comb. nov.

Basionym: *Polypodium ecostatum* Sodiro, Crypt. Vasc. Quit. :308. 1893.

**Grammitis elastica** (Bory ex Willd.) Christenh., comb. nov.

Basionym: *Polypodium elasticum* Bory ex Willd., Sp. Pl., ed. 4, 5: 183. 1810.

**Grammitis emersonii** (C.Presl) Christenh., comb. nov.

Basionym: *Prosaptia emersonii* C.Presl, Tent. Pterid.: 166. 1836.

**Grammitis engleriana** (Brause) Christenh., comb. nov.

Basionym: *Davallia engleriana* Brause, Bot. Jahrb. Syst. 49: 27. 1912.

**Grammitis enterosoroides** (Christ) Christenh., comb. nov.

Basionym: *Polypodium enterosoroides* Christ, Bull. Herb. Boissier ser. 2, 7: 260. 1907.

**Grammitis epaleata** (Parris) Christenh., comb. nov.

Basionym: *Ctenopteris epaleata* Parris, Fern Gaz. 16: 239. 2001.

**Grammitis erato** Christenh., nom. nov.

Replaced synonym: *Polypodium conforme* Brack., U.S. Expl. Exped., Filic. 16: 4. 1854, not: *Grammitis conformis* J.Sm. Etymology: Ερατώ, the muse of love poetry in Ancient Greek mythology.

**Grammitis esmeraldensis** Christenh., nom. nov.

Replaced synonym: *Lellingeria smithii* Labiak, Fl. Neotrop. Monogr. 111: 90. 2013, not: *Grammitis smithii* (A.Rojas) Christenh. Etymology: Named for Esmeraldas in Ecuador, where the type of this species was collected.

**Grammitis esquiveliana** (A.Rojas) Christenh., comb. nov.

Basionym: *Terpsichore esquiveliana* A.Rojas, Revista Biol. Trop. 49: 448. 2001.

**Grammitis eunoe** Christenh., nom. nov.

Replaced synonym: *Ceradenia clavipila* L.E.Bishop ex M.Kessler & A.R.Sm., Organisms Diversity Evol. 8: 167. 2008, not: *Grammitis clavipila* Parris. Etymology: Εὐνόε, a nymph and daughter of the river god Sangarius in Greek Mythology.

**Grammitis euterpe** Christenh., nom. nov.

Replaced synonym: *Polypodium villosissimum* var. *majus* Reimers, not: *Grammitis major* (Copel.) C.V.Morton. Etymology: Εὔτερπη, the muse of music and lyric poetry in Ancient Greek mythology.

**Grammitis eximia** (Copel.) Christenh., comb. nov.

Basionym: *Ctenopteris eximia* Copel., Philipp. J. Sci. 81: 112. 1953.

**Grammitis fawcettii** (Jenman) Christenh., comb. nov.

Basionym: *Enterosora fawcettii* Jenman, Gard. Chron. ser. 3, 18: 62. 1894.

**Grammitis fayae** Christenh., nom. nov.

Replaced synonym: *Lellingeria pendulina* A.R.Sm. & R.C.Moran, Amer. Fern J. 81: 81. 1991, not: *Grammitis pendulina*

- (Sw.) Proctor. Etymology: Named for Alice Fay, collector of the type specimen.
- Grammitis flagellata** (Lehnert) Christenh., *comb. nov.*  
Basionym: *Melpomene flagellata* Lehnert, Amer. Fern J. 98: 222. 2009.
- Grammitis flagelliformis** (Brause) Christenh., *comb. nov.*  
Basionym: *Polypodium flagelliforme* Brause, Bot. Jahrb. Syst. 56: 187. 1920.
- Grammitis flagellipinnata** (M.Kessler & A.R.Sm.) Christenh., *comb. nov.*  
Basionym: *Lellingeria flagellipinnata* M.Kessler & A.R.Sm., Organisms Diversity Evol. 8: 169. 2008.
- Grammitis flavovirens** (Alston) Christenh., *comb. nov.*  
Basionym: *Polypodium flavovirens* Alston, J. Bot. 78: 228. 1940.
- Grammitis flexibilis** (Labiak) Christenh., *comb. nov.*  
Basionym: *Lellingeria flexibilis* Labiak, Fl. Neotrop. Monogr. 111: 43. 2013.
- Grammitis foersteri** (Rosenst.) Christenh., *comb. nov.*  
Basionym: *Polypodium bipinnatifidum* Baker var. *foersteri* Rosenst., Repert. Spec. Nov. Regni Veg. Beih. 12: 179. 1913.
- Grammitis forsythiana** (Baker) Christenh., *comb. nov.*  
Basionym: *Polypodium forsythianum* Baker, Bull. Misc. Inform. Kew 1897: 300. 1897.
- Grammitis fusca** (Copel.) Christenh., *comb. nov.*  
Basionym: *Ctenopteris fusca* Copel., Univ. Calif. Publ. Bot. 18: 225. 1942.
- Grammitis fuscata** (Blume) Christenh., *comb. nov.*  
Basionym: *Polypodium fuscatum* Blume, Enum. Pl. Javae 2: 129. 1828.
- Grammitis fuscopilosa** (F.Muell. & Baker) Christenh., *comb. nov.*  
Basionym: *Polypodium fuscopilosum* F.Muell. & Baker, J. Bot. 25: 169. 1887.
- Grammitis gabonensis** (Parris) Christenh., *comb. nov.*  
Basionym: *Ctenopterella gabonensis* Parris, Fern Gaz. 19: 89. 2013.
- Grammitis geluensis** (Rosenst.) Christenh., *comb. nov.*  
Basionym: *Polypodium geluense* Rosenst., Repert. Spec. Nov. Regni Veg. 5: 374. 1908.
- Grammitis glabra** (M.Kessler & A.R.Sm.) Christenh., *comb. nov.*  
Basionym: *Ceradenia glabra* M.Kessler & A.R.Sm., Organisms Diversity Evol. 8: 167. 2008.
- Grammitis glandulifera** (A.Rojas) Christenh., *comb. nov.*  
Basionym: *Terpsichore glandulifera* A.Rojas, Lankesteriana 6: 96. 2006.
- Grammitis glandulosa** (J.Sm.) Christenh., *comb. nov.*  
Basionym: *Ctenopteris glandulosa* J.Sm., Hist. Filic. 185. 1875.
- Grammitis glaziovii** (Baker) Christenh., *comb. nov.*  
Basionym: *Polypodium glaziovii* Baker, Ann. Bot. (Oxford) 5: 465. 1891.
- Grammitis goodmanii** (Rakotondr.) Christenh., *comb. nov.*  
Basionym: *Zygophlebia goodmanii* Rakotondr., Taxon 55: 145. 2006.
- Grammitis gordoni** (S.B.Andrews) Christenh., *comb. nov.*  
Basionym: *Ctenopteris gordoni* S.B.Andrews, Austrobaileya 1: 12. 1977.
- Grammitis govidjoaensis** (Brause) Christenh., *comb. nov.*  
Basionym: *Polypodium govidjoense* Brause, Bot. Jahrb. Syst. 49: 41. 1912.
- Grammitis gracillima** (Copel.) Christenh., *comb. nov.*  
Basionym: *Polypodium gracillimum* Copel. in Perkins, Fragm. Fl. Philipp.: 189. 1905.
- Grammitis grammidiophylla** (Copel.) Christenh., *comb. nov.*  
Basionym: *Calymmodon grammidiophyllum* Copel., Univ. Calif. Publ. Bot. 18: 224. 1942.
- Grammitis grata** (Fée) Christenh., *comb. nov.*  
Basionym: *Polypodium gratum* Fée, Crypt. Vasc. Brésil 1: 242. 1869.
- Grammitis guanacastensis** (A.Rojas) Christenh., *comb. nov.*  
Basionym: *Lellingeria guanacastensis* A.Rojas, Brenesia 45-46: 37. 1996.
- Grammitis hainanensis** (Parris) Christenh., *comb. nov.*  
Basionym: *Oreogrammitis hainanensis* Parris, Fl. China 2-3: 841. 2013.
- Grammitis halconensis** (Copel.) Christenh., *comb. nov.*  
Basionym: *Polypodium halconense* Copel., Philipp. J. Sci., C 2: 138. 1907.
- Grammitis hecistophylla** (Copel.) Christenh., *comb. nov.*  
Basionym: *Polypodium hecistophyllum* Copel., Philipp. J. Sci. 56: 477. 1935.
- Grammitis helike** Christenh., *nom. nov.* Replaced synonym: *Prosatia alata* Christ., Ann. Jard. Bot. Buitenzorg II 5: 127. 1905, not *Grammitis alata* (Blume) C.V.Morton. Etymology: Ελίκη, a nymph that nurtured the god Zeus in infancy on Crete.
- Grammitis hieronymusii** (C.Chr.) Christenh., *comb. nov.*  
Basionym: *Polypodium hieronymusii* C.Chr., Index Filic.: 533. 1906.
- Grammitis hildebrandtii** (Hieron.) Christenh., *comb. nov.*  
Basionym: *Polypodium hildebrandtii* Hieron., Hedwigia 44: 91. 1905.
- Grammitis hirsuta** (A.R.Sm. & R.C.Moran) Christenh., *comb. nov.*  
Basionym: *Lellingeria hirsuta* A.R.Sm. & R.C.Moran, Amer. Fern J. 81: 80. 1991.
- Grammitis hornei** (Baker) Christenh., *comb. nov.*  
Basionym: *Polypodium hornei* Baker, J. Bot. 17: 298. 1879.
- Grammitis huancabambensis** (Lehnert) Christenh., *comb. nov.*  
Basionym: *Melpomene huancabambensis* Lehnert, Amer. Fern J. 98: 224. 2009.
- Grammitis humbertii** (C.Chr.) Christenh., *comb. nov.*  
Basionym: *Polypodium humbertii* C.Chr., Arch. Bot., Bull. Mens. 2: 215. 1928.
- Grammitis hymenophylloides** (Parris) Christenh.,

- comb. nov.** Basionym: *Ctenopteris hymenophylloides* Parris, *Kew Bull.* 59: 221. 2004.
- Grammitis immersa** (Brownlie) Christenh., **comb. nov.** Basionym: *Ctenopteris immersa* Brownlie, *Nova Hedwigia*, Beih. 55: 352. 1977.
- Grammitis inconspicua** (Blume) Christenh., **comb. nov.** Basionym: *Polypodium inconspicuum* Blume, *Enum. Pl. Javae* 2: 130. 1828.
- Grammitis integripaleata** (Copel.) Christenh., **comb. nov.** Basionym: *Ctenopteris integripaleata* Copel., *Univ. Calif. Publ. Bot.* 18: 225. 1942.
- Grammitis intermedia** (Ching) Christenh., **comb. nov.** Basionym: *Polypodium urceolare* var. *intermedium* Ching, *Bull. Dept. Biol. Sun Yatsen Univ.* 6: 32. 1933.
- Grammitis intonsa** (L.E.Bishop ex León-Parra & Mostacero) Christenh., **comb. nov.** Basionym: *Ceradenia intonta* L.E.Bishop ex León-Parra & Mostacero, *Fl. Colombia* 29: 38. 2012.
- Grammitis itatiaiensis** (Labiak & Condack) Christenh., **comb. nov.** Basionym: *Ceradenia itatiaiensis* Labiak & Condack, *Novon* 18: 495.
- Grammitis itatimensis** (C.Chr.) Christenh., **comb. nov.** Basionym: *Polypodium itatimense* C.Chr., *Index Filic.*, Suppl. 3: 151. 1934.
- Grammitis javanica** (Copel.) Christenh., **comb. nov.** Basionym: *Polypodium javanicum* Copel., *Philipp. J. Sci.*, C 8: 142. 1913.
- Grammitis jimenezii** (M.Kessler & A.R.Sm.) Christenh., **comb. nov.** Basionym: *Ceradenia jimenezii* M.Kessler & A.R.Sm., *Organisms Diversity Evol.* 8: 168. 2008.
- Grammitis kalawayae** (M.Kessler & A.R.Sm.) Christenh., **comb. nov.** Basionym: *Ceradenia kalawayae* M.Kessler & A.R.Sm., *Organisms Diversity Evol.* 8: 168. 2008.
- Grammitis kanashiroi** (Nakai) Christenh., **comb. nov.** Basionym: *Prosaptia kanashiroi* Nakai in Yamam., Suppl. Ic. Pl. Formos. V: 6. 1932.
- Grammitis kessleri** Christenh., **nom. nov.** Replaced synonym: *Terpsichore nana* Sundue & M.Kessler, *Organisms Diversity Evol.* 8: 164. 2008, not: *Grammitis nana* Féée, nor: *Grammitis nana* Brack. Etymology: Named for Michael Kessler, who first described this species.
- Grammitis khaoluangensis** (Tagawa & K.Iwats.) Christenh., **comb. nov.** Basionym: *Xiphopteris khaoluangensis* Tagawa & K.Iwats., *Acta Phytotax. Geobot.* 23: 177. 1969.
- Grammitis khasiana** (Hook.) Christenh., **comb. nov.** Basionym: *Polypodium khasianum* Hook., *Icon. Pl.* 10: t. 949. 1854.
- Grammitis kirkii** (Parris) Christenh., **comb. nov.** Basionym: *Terpsichore kirkii* Parris, *Kew Bull.* 57: 431. 2002.
- Grammitis kjellbergii** (C.Chr.) Christenh., **comb. nov.** Basionym: *Polypodium kjellbergii* C.Chr., *Bot. Jahrb. Syst.* 66: 63. 1933.
- Grammitis kookenamae** (Jenman) Christenh., **comb. nov.** Basionym: *Polypodium kookenamae* Jenman, *Timhehri* 5: 215. 1886.
- Grammitis kunstleri** (Parris) Christenh., **comb. nov.** Basionym: *Oreogrammitis kunstleri* Parris, *Gard. Bull. Singapore* 58: 254. 2007.
- Grammitis labiakii** Christenh., **nom. nov.** Replaced synonym: *Lellingeria jimenezii* Labiak, *Fl. Neotrop. Monogr.* 111: 53. 2013, not: *Grammitis jimenezii* (M.Kessler & A.R.Sm.) Christenh. Etymology: Named for Paulo Labiak, who first described this species.
- Grammitis laxifolia** (A.R.Sm. & R.C.Moran) Christenh., **comb. nov.** Basionym: *Lellingeria laxifolia* A.R.Sm. & R.C.Moran, *Amer. Fern J.* 81: 81. 1991.
- Grammitis lehnertii** Christenh., **nom. nov.** Replaced synonym: *Melpomene jimenezii* Lehner, *Amer. Fern J.* 98: 227. 2009, not: *Grammitis jimenezii* (M.Kessler & A.R.Sm.) Christenh. Etymology: Named for Marcus Lehner, who first described this species.
- Grammitis leonae** Christenh., **nom. nov.** Replaced synonym: *Terpsichore youngii* B.León & A.R.Sm., *Amer. Fern J.* 93: 84. 2003, not: *Grammitis youngii* Stolze. Etymology: Named for Blanca León, who first described this species.
- Grammitis lepida** (Brause) Christenh., **comb. nov.** Basionym: *Polypodium lepidum* Brause, *Notizbl. Bot. Gart. Berlin-Dahlem* 8: 139. 1922.
- Grammitis leucolepis** (Gilbert) Christenh., **comb. nov.** Basionym: *Polypodium leucolepis* Gilbert, *Bull. Torrey Bot. Club* 24: 260. 1897.
- Grammitis leucosora** (Bojer ex Hook.) Christenh., **comb. nov.** Basionym: *Polypodium leucosorum* Bojer ex Hook., *Icon. Pl.* 10: sub. t. 942–943. 1854.
- Grammitis leysii** (Baker) Christenh., **comb. nov.** Basionym: *Polypodium leysii* Baker, *J. Bot.* 17: 66. 1879.
- Grammitis livida** (Mett.) Christenh., **comb. nov.** Basionym: *Polypodium lividum* Mett., *Ann. Mus. Bot. Lugd.-Bat.* 2: 221. 1866.
- Grammitis lobulata** (A.Rojas) Christenh., **comb. nov.** Basionym: *Terpsichore lobulata* A.Rojas, *Mét. Ecol. Sist.* 3: 14. 2008.
- Grammitis longattenuata** (D.M.Forero & J.Murillo) Christenh., **comb. nov.** Basionym: *Lellingeria longattenuata* D.M.Forero & J.Murillo, *Caldasia* 32: 321. 2010.
- Grammitis longicaulis** (Sundue & M.Kessler) Christenh., **comb. nov.** Basionym: *Terpsichore longicaulis* Sundue & M.Kessler, *Organisms Diversity Evol.* 8: 163. 2008.
- Grammitis longiceps** (Rosenst.) Christenh., **comb. nov.** Basionym: *Polypodium longiceps* Rosenst., *Reprt.*

*Spec. Nov. Regni Veg.* 12: 177. 1913.

**Grammitis longipilosa** (C.Chr.) Christenh., *comb. nov.*  
Basionym: *Polypodium longipilosum* C.Chr., *Bot. Tidsskr.* 25: 78. 1903.

**Grammitis longisetosa** (Hook.) Christenh., *comb. nov.*  
Basionym: *Polypodium longisetosum* Hook., *Sp. Filic.* 4: 225. 1864.

**Grammitis loxensis** (Sundue) Christenh., *comb. nov.*  
Basionym: *Ascogrammitis loxensis* Sundue, *Brittonia* 62: 380. 2010.

**Grammitis luetzelburgii** (Rosenst.) Christenh., *comb. nov.*  
Basionym: *Polypodium luetzelburgii* Rosenst., *Repert. Spec. Nov. Regni Veg.* 20: 93. 1924.

**Grammitis macra** (Copel.) Christenh., *comb. nov.*  
Basionym: *Polypodium macrum* Copel. in Perkins, *Fragm. Fl. Philipp.*: 189. 1905.

**Grammitis macrorhyncha** (Baker) Christenh., *comb. nov.*  
Basionym: *Polypodium macrorhynchum* Baker, *J. Bot.* 18: 370. 1880.

**Grammitis madagascariensis** (Rakotondr. & Rouhan)  
Christenh., *comb. nov.* Basionym: *Leucotrichum madagascariense* Rakotondr. & Rouhan, *Syst. Bot.* 37: 335. 2012.

**Grammitis madidiensis** (M.Kessler & A.R.Sm.)  
Christenh., *comb. nov.* Basionym: *Ceradenia madidiensis* M.Kessler & A.R.Sm., *Organisms Diversity Evol.* 8: 168. 2008.

**Grammitis maidenii** (Watts) Christenh., *comb. nov.*  
Basionym: *Polypodium maidenii* Watts, *Proc. Linn. Soc. New South Wales* 39: 793. 1915.

**Grammitis malaccana** (Baker) Christenh., *comb. nov.*  
Basionym: *Polypodium malaccanum* Baker, *Ann. Bot. (Oxford)* 8: 129. 1894.

**Grammitis malayensis** (Parris) Christenh., *comb. nov.*  
Basionym: *Oreogrammitis malayensis* Parris, *Gard. Bull. Singapore* 58: 254. 2007.

**Grammitis marginalis** (León-Parra) Christenh., *comb. nov.*  
Basionym: *Ceradenia marginalis* León-Parra, *Fl. Colombia* 29: 53. 2012.

**Grammitis marialta** (L.E.Bishop ex León-Parra)  
Christenh., *comb. nov.* Basionym: *Ceradenia marialta* L.E.Bishop ex León-Parra, *Fl. Colombia* 29: 56. 2012.

**Grammitis melete** Christenh., *nom. nov.* Replaced synonym: *Cochlidium repandum* L.E.Bishop, *Amer. Fern J.* 68: 83. 1978, not: *Grammitis repanda* Kunze ex Mett. Etymology: Μελέτη was the Boeotian Muse of thought and meditation in Ancient Greek mythology.

**Grammitis melpomene** Christenh., *nom. nov.* Replaced synonym: *Melpomene vulcanica* Lehner, *Amer. Fern J.* 98: 245. 2009, not: *Grammitis vulcanica* Blume. Etymology: Μελπομένη, the muse of tragedy in

Ancient Greek mythology.

**Grammitis michaelium** (Lehnert) Christenh., *comb. nov.* Basionym: *Melpomene michaelium* Lehnert, *Amer. Fern J.* 98: 229. 2009, as 'michaelis'. Note: This is named for two people called Michael, and hence it needs to be in the 3<sup>rd</sup> declension plural.

**Grammitis microcystis** (L.E.Bishop & A.R.Sm.) Christenh., *comb. nov.* Basionym: *Ceradenia microcystis* L.E.Bishop & A.R.Sm., *Ann. Missouri Bot. Gard.* 77: 255. 1990.

**Grammitis microlepis** (Rosenst.) Christenh., *comb. nov.* Basionym: *Polypodium blepharodes* Maxon var. *microlepis* Rosenst., *Repert. Spec. Nov. Regni Veg.* 22: 14. 1925.

**Grammitis micropecten** (C.Chr.) Christenh., *comb. nov.* Basionym: *Polypodium oosorum* var. *micropecten* C.Chr., *Dansk Bot. Ark.* 7: 153. 1932.

**Grammitis micropora** (Copel.) Christenh., *comb. nov.* Basionym: *Ctenopteris micropora* Copel., *Philipp. J. Sci.* 81: 44. 1952.

**Grammitis militaris** (Maxon) Christenh., *comb. nov.* Basionym: *Polypodium militare* Maxon, *Contr. Gray Herb.* 165: 71. 1947.

**Grammitis minuta** (Blume) Christenh., *comb. nov.* Basionym: *Polypodium minutum* Blume, *Enum. Pl. Javae* 2: 130. 1828.

**Grammitis minutissima** (J.W.Moore) Christenh., *comb. nov.* Basionym: *Polypodium minutissimum* J.W.Moore, *Bull. Bernice P. Bishop Mus.* 102: 11. 1933.

**Grammitis mneme** Christenh., *nom. nov.* Replaced synonym: *Polypodium subspathulatum* Brack., *U.S. Expl. Exped., Filic.* 16: 3. 1854, not: *Grammitis subspathulata* Farw. Etymology: Μνήμη was the Boeotian Muse of Memory in Ancient Greek mythology.

**Grammitis mnemosyne** Christenh., *nom. nov.* Replaced synonym: *Ceradenia setosa* M.Kessler & A.R.Sm., *Organisms Diversity Evol.* 8: 168. 2008, not: *Grammitis setosa* (Kaulf.) C.Presl. Etymology: Μνησούνη, mother of the Muses and the personification of memory in Ancient Greek mythology.

**Grammitis mollicoma** (Nees & Blume) Christenh., *comb. nov.* Basionym: *Polypodium mollicomum* Nees & Blume, *Nova Acta Phys.-Med. Acad. Caes. Leop.-Carol. Nat. Cur.* 11: 121. 1823.

**Grammitis monosora** (Moguel & M.Kessler) Christenh., *comb. nov.* Basionym: *Terpsichore monosora* Moguel & M.Kessler, *Phytotaxa* 2: 40. 2009.

**Grammitis moorei** (Parris & Ralf Knapp) Christenh., *comb. nov.* Basionym: *Radiogrammitis moorei* Parris & Ralf Knapp, *Fl. China* 2-3: 842. 2013.

**Grammitis moranii** (Labiak) Christenh., *comb. nov.*

- Basionym: *Lellingeria moranii* Labiak, Fl. Neotrop. Monogr. 111: 68. 2013.
- Grammitis multicaudata** (Copel.) Christenh., comb. nov. Basionym: *Polypodium multicaudatum* Copel., Philipp. J. Sci. 1(Suppl. 2): 160. 1906.
- Grammitis murudensis** (Copel.) Christenh., comb. nov. Basionym: *Polypodium murudense* Copel., Philipp. J. Sci., C 12: 61. 1917.
- Grammitis muscoides** (Copel.) Christenh., comb. nov. Basionym: *Polypodium muscoides* Copel., Leafl. Philipp. Bot. 3: 839. 1910.
- Grammitis musgraviana** (Baker) Christenh., comb. nov. Basionym: *Polypodium musgravianum* Baker, J. Bot. 28: 108. 1890.
- Grammitis narinensis** (León-Parra) Christenh., comb. nov. Basionym: *Ceradenia narinensis* León-Parra, Fl. Colombia 29: 65. 2012.
- Grammitis negrosensis** (Copel.) Christenh., comb. nov. Basionym: *Polypodium negrosense* Copel., Leafl. Philipp. Bot. 2: 409. 1908.
- Grammitis nervata** (A.Rojas) Christenh., comb. nov. Basionym: *Cochlidium nervatum* A.Rojas, Méta. Ecol. Sist. 2: 14. 2007.
- Grammitis nhatrangensis** (C.Chr. & Tardieu) Christenh., comb. nov. Basionym: *Ctenopteris nhatrangensis* C.Chr. & Tardieu, Notul. Syst. (Paris) 8: 181. 1939.
- Grammitis nutans** (Blume) Christenh., comb. nov. Basionym: *Polypodium nutans* Blume, Enum. Pl. Javae 2: 128. 1828.
- Grammitis nymphæ** Christenh., nom. nov. Replaced synonym: *Xiphopterella gracilis* Parris, Gard. Bull. Singapore 58: 250. 2007, not: *Grammitis gracilis* (Hook.) Stolze. Etymology: νύμφη, a minor nature deity in Greek mythology, usually associated with a land formation or natural phenomenon.
- Grammitis occidentalis** (Lehnert) Christenh., comb. nov. Basionym: *Melpomene occidentalis* Lehnert, Amer. Fern J. 98: 231. 2009.
- Grammitis oxapampensis** (Sundue) Christenh., comb. nov. Basionym: *Ascogrammitis oxapampensis* Sundue, Brittonia 62: 382. 2010.
- Grammitis paradoxa** (Lehnert) Christenh., comb. nov. Basionym: *Melpomene paradoxa* Lehnert, Amer. Fern J. 98: 235. 2009.
- Grammitis parrisiae** (Sundue & Labiak) Christenh., comb. nov. Basionym: *Galactodenia parrisiae* Sundue & Labiak, Syst. Bot. 37: 345. 2012.
- Grammitis paucipinnata** (Parris) Christenh., comb. nov. Basionym: *Lellingeria paucipinnata* Parris, Kew Bull. 57: 428. 2002.
- Grammitis paulistana** (Brade & Rosenst.) Christenh., comb. nov. Basionym: *Polypodium paulistanum* Brade & Rosenst., Arq. Inst. Biol. Veg. 2: 3. 1935.
- Grammitis pectinata** (T.Moore) Christenh., comb. nov. Basionym: *Prosaptia pectinata* T.Moore, Index Filic.: 298. 1861.
- Grammitis pediculata** (Baker) Christenh., comb. nov. Basionym: *Polypodium pediculatum* Baker, Syn. Filic. (Hooker & Baker): 455. 1868.
- Grammitis pendens** (Rosenst.) Christenh., comb. nov. Basionym: *Polypodium pendens* Rosenst., Repert. Spec. Nov. Regni Veg. 12: 177. 1913.
- Grammitis pensilis** (Ridl.) Christenh., comb. nov. Basionym: *Polypodium pensile* Ridl., Trans. Linn. Soc. London, Bot. 9: 262. 1916.
- Grammitis perplexa** (Parris) Christenh., comb. nov. Basionym: *Ctenopteris perplexa* Parris, Fern Gaz. 16: 201. 2001.
- Grammitis personata** (Lehnert) Christenh., comb. nov. Basionym: *Melpomene personata* Lehnert, Amer. Fern J. 98: 237. 2009.
- Grammitis phloiocharis** (L.E.Bishop) Christenh., comb. nov. Basionym: *Ceradenia phloiocharis* L.E.Bishop, Amer. Fern J. 79: 19. 1989.
- Grammitis pilipalaea** (M.Kessler & A.R.Sm.) Christenh., comb. nov. Basionym: *Ceradenia pilipalaea* M.Kessler & A.R.Sm., Organisms Diversity Evol. 8: 168. 2008.
- Grammitis pilipecten** (L.E.Bishop ex M.Kessler & A.R.Sm.) Christenh., comb. nov. Basionym: *Ceradenia pilipecten* L.E.Bishop ex M.Kessler & A.R.Sm., Organisms Diversity Evol. 8: 168. 2008.
- Grammitis pinnatifida** (C.Presl) Christenh., comb. nov. Basionym: *Prosaptia pinnatifida* C.Presl, Tent. Pterid.: 166. 1836.
- Grammitis pirrensis** (A.R.Sm.) Christenh., comb. nov. Basionym: *Terpsichore pirrensis* A.R.Sm., Novon 3: 483. 1993.
- Grammitis polita** (Parris) Christenh., comb. nov. Basionym: *Oreogrammitis polita* Parris, Gard. Bull. Singapore 58: 266. 2007.
- Grammitis polyhymnia** Christenh., nom. nov. Replaced synonym: *Plectopteris gracilis* Féée, Mém. Foug. 5: 230. 1852, not: *Grammitis gracilis* (Hook.) Stolze. Etymology: Πολύμυντα, the muse of sacred poetry and hymns in Ancient Greek mythology.
- Grammitis polymorpha** (Copel.) Christenh., comb. nov. Basionym: *Prosaptia polymorpha* Copel., Philipp. J. Sci., C 2: 136. 1907.
- Grammitis polytricha** (Copel.) Christenh., comb. nov. Basionym: *Ctenopteris polytricha* Copel., Univ. Calif. Publ. Bot. 18: 225. 1942.
- Grammitis pradoana** Christenh., nom. nov. Replaced synonym: *Lellingeria longifolia* Labiak, Fl. Neotrop. Monogr. 111: 59. 2013, not *Grammitis longifolia* Blume. Etymology: Named for Jefferson Prado, for

- his contributions to Brazilian pteridology.
- Grammitis praeceps** (Sundue & M.Kessler) Christenh., *comb. nov.* Basionym: *Terpsichore praeceps* Sundue & M.Kessler, *Organisms Diversity Evol.* 8: 164. 2008.
- Grammitis presliae** (Fée) Christenh., *comb. nov.* Basionym: *Prosaptia presliae* Fée, *Mém. Foug.*, 5. Gen. Filic.: 324. 1850.
- Grammitis pseudospiralis** (Alderw.) Christenh., *comb. nov.* Basionym: *Polypodium pseudospirale* Alderw., *Bull. Jard. Bot. Buitenzorg*, Ser. 2, 1: 29. 1911.
- Grammitis pseudotenuicula** (Labiak) Christenh., *comb. nov.* Basionym: *Lellingeria pseudotenuicula* Labiak, *Fl. Neotrop. Monogr.* 111: 84. 2013.
- Grammitis pseudotrichomanoides** (Hayata) Christenh., *comb. nov.* Basionym: *Polypodium pseudotrichomanoides* Hayata, *Icon. Pl. Formosan.* 4: 251. 1914.
- Grammitis pubipes** (Copel.) Christenh., *comb. nov.* Basionym: *Prosaptia pubipes* Copel., *Bull. Bernice P. Bishop Mus.* 93: 13. 1932.
- Grammitis pullei** (Alston) Christenh., *comb. nov.* Basionym: *Polypodium pullei* Alston, *J. Bot.* 78: 229. 1940.
- Grammitis pulogensis** (Copel.) Christenh., *comb. nov.* Basionym: *Polypodium pulogense* Copel., *Philipp. J. Sci.*, C 6: 148. 1911.
- Grammitis purpurascens** (Nadeaud) Christenh., *comb. nov.* Basionym: *Polypodium purpurascens* Nadeaud, *Énum. Pl. Tahiti*: 26. 1873.
- Grammitis reclinata** (Brack.) Christenh., *comb. nov.* Basionym: *Polypodium reclinatum* Brack., *U.S. Expl. Exped.*, Filic. 16: 11. 1854.
- Grammitis reineckeana** (Christ) Christenh., *comb. nov.* Basionym: *Prosaptia reineckeana* Christ, *Nachtr. Fl. Schutzgeb. Südsee* [Schumann & Lauterbach]: 41. 1905.
- Grammitis repandula** (Mett.) Christenh., *comb. nov.* Basionym: *Polypodium repandum* Mett., *Abh. Senckenberg. Naturf. Ges.* 2: 50. 1856.
- Grammitis rhodocarpa** (Copel.) Christenh., *comb. nov.* Basionym: *Ctenopteris rhodocarpa* Copel., *Univ. Calif. Publ. Bot.* 18: 225. 1942.
- Grammitis rojasii** Christenh., *nom. nov.* Replaced synonym: *Lellingeria pinnata* A.Rojas, *Lankesteriana* 6: 95. 2006, not: *Grammitis pinnata* (Hook.) F.Muell. Etymology: Named for Alexander Rojas, who first described this species.
- Grammitis rosenstockii** (Copel.) Christenh., *comb. nov.* Basionym: *Prosaptia rosenstockii* Copel., *Univ. Calif. Publ. Bot.* 12: 404. 1931.
- Grammitis rupicola** (R.Y.Hirai & J.Prado) Christenh., *comb. nov.* Basionym: *Moranopteris rupicola* R.Y.Hirai & J.Prado, *Taxon* 60: 1132. 2011.
- Grammitis sabrinae** Christenh., *nom. nov.* Replaced synonym: *Enterosora bishopii* A.Rojas, *Lankesteriana* 6: 9. 2006, not: *Grammitis bishopii* Stolze. Etymology: Named for Hafren (Sabrina in Latin), a legendary British princess (daughter of King Locrin) who was drowned in the River Severn.
- Grammitis sarawakensis** (Parris) Christenh., *comb. nov.* Basionym: *Ctenopteris sarawakensis* Parris in Hooker's *Icon. Pl.* 40: t. 3986. 1990.
- Grammitis satyros** Christenh., *nom. nov.* Replaced synonym: *Prosaptia bipinnata* C.Presl, *Tent. Pterid.* 166. 1836, not: *Grammitis bipinnata* Stolze. Etymology: Σάτυρος, a member of a troupe of male companions of Dionysos, god of wine and harvest, who spend their time drinking and chasing nymphs in Ancient Greek mythology.
- Grammitis schlechteri** (Christ) Christenh., *comb. nov.* Basionym: *Prosaptia schlechteri* Christ, *Nachtr. Fl. Schutzgeb. Südsee* [Schumann & Lauterbach]: 41. 1905.
- Grammitis sclerophylla** (Alderw.) Christenh., *comb. nov.* Basionym: *Polypodium sclerophyllum* Alderw., *Nova Guinea* 14: 45. 1924.
- Grammitis secunda** (Ridl.) Christenh., *comb. nov.* Basionym: *Polypodium secundum* Ridl., *Trans. Linn. Soc. London, Bot.* 9: 262. 1916.
- Grammitis seemannii** (J.Sm.) Christenh., *comb. nov.* Basionym: *Cryptosorus seemannii* J.Sm., *Bonplandia* 9: 262. 1861.
- Grammitis semicrypta** (Copel.) Christenh., *comb. nov.* Basionym: *Prosaptia semicrypta* Copel., *Philipp. J. Sci.*, C 9: 231. 1914.
- Grammitis semilunaris** (Moguel & M.Kessler) Christenh., *comb. nov.* Basionym: *Terpsichore semilunaris* Moguel & M.Kessler, *Phytotaxa* 2: 42. 2009.
- Grammitis serriformis** (Christ) Christenh., *comb. nov.* Basionym: *Prosaptia serriformis* Christ, *Bull. Herb. Boissier* 6: 143. 1898.
- Grammitis sesquipinnata** (Copel.) Christenh., *comb. nov.* Basionym: *Ctenopteris sesquipinnata* Copel., *Univ. Calif. Publ. Bot.* 18: 225. 1942.
- Grammitis setulifera** (Alderw.) Christenh., *comb. nov.* Basionym: *Polypodium setuliferum* Alderw., *Bull. Jard. Bot. Buitenzorg* Ser. 2, 16: 32. 1914.
- Grammitis shawii** (Copel.) Christenh., *comb. nov.* Basionym: *Polypodium shawii* Copel., *Philipp. J. Sci.*, C 9: 6. 1914.
- Grammitis simacensis** (Rosenst.) Christenh., *comb. nov.* Basionym: *Polypodium simacense* Rosenst., *Repert. Spec. Nov. Regni Veg.* 25: 60. 1928.
- Grammitis similis** (M.Kessler & A.R.Sm.) Christenh., *comb. nov.* Basionym: *Ceradenia similis* M.Kessler

- & A.R.Sm., *Organisms Diversity Evol.* 8: 168. 2008.
- Grammitis simplex** (R.Y.Hirai & J.Prado) Christenh., *comb. nov.* Basionym: *Moranopteris simplex* R.Y.Hirai & J.Prado, *Taxon* 60: 1135. 2011.
- Grammitis sinica** (Christ) Christenh., *comb. nov.* Basionym: *Polypodium sinicum* Christ, *Bull. Herb. Boissier* 7: 3. 1899.
- Grammitis sinohirtella** (Parris) Christenh., *comb. nov.* Basionym: *Oreogrammitis sinohirtella* Parris, *Fl. China* 2-3: 842. 2013.
- Grammitis sinuata** (T.Moore) Christenh., *comb. nov.* Basionym: *Gymnogramma sinuata* T.Moore, *Ann. Bot. (Oxford)* 5: 483. 1891. Synonym: *Enterosora asplenoides* L.E.Bishop, *Syst. Bot.* 17: 358. 1992, not: *Grammitis asplenoides* C.Presl
- Grammitis sklenarii** (Lehnert) Christenh., *comb. nov.* Basionym: *Melpomene sklenarii* Lehnert, *Amer. Fern J.* 98: 241. 2009.
- Grammitis smithii** (A.Rojas) Christenh., *comb. nov.* Basionym: *Terpsichore smithii* A.Rojas, *Mét. Ecol. Sist.* 3: 15. 2008.
- Grammitis sparsipilosa** (Holttum) Christenh., *comb. nov.* Basionym: *Ctenopteris sparsipilosa* Holttum, *Gard. Bull. Singapore* 11: 268. 1947.
- Grammitis spathulata** (A.R.Sm.) Christenh., *comb. nov.* Basionym: *Terpsichore spathulata* A.R.Sm., *Novon* 3: 483. 1993.
- Grammitis spixiana** (Mett.) Christenh., *comb. nov.* Basionym: *Polyodium spixianum* Mett., *Abh. Senckenberg. Naturf. Ges.* 2: 57. 1856.
- Grammitis spongiosa** (Maxon) Christenh., *comb. nov.* Basionym: *Enterosora spongiosa* Maxon, *Proc. Biol. Soc. Washington* 52: 113. 1939.
- Grammitis stella** (Copel.) Christenh., *comb. nov.* Basionym: *Ctenopteris stella* Copel., *Philipp. J. Sci.* 84: 452. 1956.
- Grammitis stellatosetosa** (Copel.) Christenh., *comb. nov.* Basionym: *Ctenopteris stellatosetosa* Copel., *Univ. Calif. Publ. Bot.* 18: 225. 1942.
- Grammitis stenobasis** (Baker) Christenh., *comb. nov.* Basionym: *Polyodium stenobasis* Baker, *Ann. Bot. (Oxford)* 8: 130. 1894.
- Grammitis steyermarkii** (Labiak) Christenh., *comb. nov.* Basionym: *Terpsichore steyermarkii* Labiak, *Brittonia* 52: 254. 2000.
- Grammitis strangeana** (Pic.Serm.) Christenh., *comb. nov.* Basionym: *Xiphopteris strangeana* Pic.Serm., *Webbia* 27: 453. 1972.
- Grammitis stuebelii** (Hieron.) Christenh., *comb. nov.* Basionym: *Polyodium stuebelii* Hieron., *Hedwigia* 48: 252. 1909.
- Grammitis subcoriacea** (Copel.) Christenh., *comb. nov.* Basionym: *Polyodium subcoriaceum* Copel., *Bull.*
- Bernice P. Bishop Mus. 93: 12. 1932.
- Grammitis subglabra** (M.Kato & Parris) Christenh., *comb. nov.* Basionym: *Prosaptia contigua* C.Presl var. *subglabra* M.Kato & Parris, *J. Fac. Sci. Univ. Tokyo, Bot.* 15: 119. 1992.
- Grammitis subhamatopilosaa** (Alderw.) Christenh., *comb. nov.* Basionym: *Polyodium subhamatopilosum* Alderw., *Bull. Jard. Bot. Buitenzorg ser. 3, 5:* 220. 1922.
- Grammitis subimpressa** (Copel.) Christenh., *comb. nov.* Basionym: *Ctenopteris subimpressa* Copel., *Philipp. J. Sci.* 84: 463. 1956.
- Grammitis subminuta** (Alderw.) Christenh., *comb. nov.* Basionym: *Polyodium subminutum* Alderw., *Malayan Ferns* : 598. 1909.
- Grammitis subnuda** (Mett. ex Kuhn) Christenh., *comb. nov.* Basionym: *Polyodium subnudum* Mett. ex Kuhn, *Linnaea* 36: 130. 1869.
- Grammitis subpinnata** (Baker) Christenh., *comb. nov.* Basionym: *Polyodium subpinnatum* Baker, *J. Linn. Soc., Bot.* 15: 419. 1876.
- Grammitis subrepandula** (Christ) Christenh., *comb. nov.* Basionym: *Polyodium subrepandulum* Christ, *Ann. Jard. Bot. Buitenzorg II.* 5: 119. 1905.
- Grammitis subsecundodissecta** (Zoll.) Christenh., *comb. nov.* Basionym: *Polyodium subsecundodissectum* Zoll., *Syst. Verz.* 38, 48. 1854.
- Grammitis subtriangularis** (Alderw.) Christenh., *comb. nov.* Basionym: *Polyodium subtriangulare* Alderw., *Bull. Dept. Agric. Indes Neerl.* 18: 20. 1908.
- Grammitis subulatipinna** (Alderw.) Christenh., *comb. nov.* Basionym: *Polyodium subulatipinnum* Alderw., *Nova Guinea* 14: 46. 1924.
- Grammitis sunduei** Christenh., *nom. nov.* Replaced synonym: *Mycopteris longipilosa* Sundue, *Brittonia* 66: 179. 2013, not: *Grammitis longipilosa* (C.Chr.) Christenh. Etymology: Named for Michael Sundue, who first described this species.
- Grammitis taiwanensis** (Parris & Ralf Knapp) Christenh., *comb. nov.* Basionym: *Radiogrammitis taiwanensis* Parris & Ralf Knapp, *Fl. China* 2-3: 843. 2013.
- Grammitis tamandarei** (Rosenst.) Christenh., *comb. nov.* Basionym: *Polyodium tamandarei* Rosenst., *Hedwigia* 56: 369. 1915.
- Grammitis taxodioides** (Baker) Christenh., *comb. nov.* Basionym: *Polyodium taxodioides* Baker, *J. Bot.* 17: 42. 1879.
- Grammitis terpsichore** Christenh., *nom. nov.* Replaced synonym: *Polyodium flexuosum* Maxon, *Contr. U.S. Natl. Herb.* 17: 597. 1916, not: *Grammitis flexuosa* Humb. & Bonpl. Etymology: Τερψιχόρη, the Muse of Dance in Ancient Greek mythology.
- Grammitis thalia** Christenh., *nom. nov.* Replaced

synonym: *Polypodium emersonii* (Hook. & Grev.) C.Chr. var. *samoense* C.Chr., *Bishop Mus. Bull. Bot.* 177: 111. 1943, not: *Grammitis samoensis* (Baker) Ching. Etymology: Θάλεια, the Muse of Comedy in Ancient Greek mythology.

**Grammitis thelxinoe** Christenh., nom. nov. Replaced synonym: *Prosaptia archboldii* Copel., *Univ. Calif. Publ. Bot.* 18: 226. 1942, not: *Grammitis archboldii* C.Chr. Etymology: Θελξίνων, the Muse of Happiness in Ancient Greek mythology.

**Grammitis tintinnabula** Christenh., nom. nov. Replaced synonym: *Prosaptia linearis* Copel., *Philipp. J. Sci.*, C 4: 115. 1909, not: *Grammitis linearis* Sw. Etymology: Named for a roman wind chime, tintinnabula, often of phallic shape.

**Grammitis toppingii** (Copel.) Christenh., comb. nov. Basionym: *Prosaptia toppingii* Copel., *Philipp. J. Sci.* 1(Suppl. 2): 158. 1906.

**Grammitis torulosa** (Baker) Christenh., comb. nov. Basionym: *Polypodium torulosum* Baker, *J. Linn. Soc., Bot.* 16: 204. 1877.

**Grammitis translucens** (Parris & Jaman) Christenh., comb. nov. Basionym: *Oreogrammitis translucens* Parris & Jaman, *Sains Malaysiana* 41: 299. 2012.

**Grammitis tristis** (A.R.Sm.) Christenh., comb. nov. Basionym: *Ceradenia tristis* A.R.Sm., *Novon* 3: 184. 1993.

**Grammitis tryoniorum** (B.León & A.R.Sm.) Christenh., comb. nov. Basionym: *Ceradenia tryoniorum* B.León & A.R.Sm., *Amer. Fern J.* 93: 81. 2003.

**Grammitis tsatchelae** (Labiak) Christenh., comb. nov. Basionym: *Melpomene tsatchelae* Labiak, *Brittonia* 52: 251. 2000.

**Grammitis tunquiniensis** (M.Kessler & A.R.Sm.) Christenh., comb. nov. Basionym: *Ceradenia tunquiniensis* M.Kessler & A.R.Sm., *Organisms Diversity Evol.* 8: 169. 2008.

**Grammitis urania** Christenh., nom. nov. Replaced synonym: *Polypodium cucullatum* Nees & Blume, *Nova Acta Regiae Soc. Sci. Upsal.*, ser. 2, 11: 121. 3. 1823, not: *Grammitis cucullata* Blume. Etymology: Ούπανια, the Muse of Astronomy in Ancient Greek mythology.

**Grammitis urceolaris** (Hayata) Christenh., comb. nov. Basionym: *Polypodium urceolare* Hayata, *Icon. Pl. Formosan.* 5: 324. 1915.

**Grammitis vareschii** (A.R.Sm. & Mostacero) Christenh., comb. nov. Basionym: *Galactodenia vareschii* A.R.Sm. & Mostacero, *Syst. Bot.* 37: 346. 2012.

**Grammitis vargasiana** (A.Rojas) Christenh., comb. nov. Basionym: *Lellingeria vargasiana* A.Rojas, *Brenesia* 75-76: 8. 2011.

**Grammitis venulosoides** (Copel.) Christenh., comb. nov. Basionym: *Ctenopteris venulosoides* Copel.,

*Univ. Calif. Publ. Bot.* 18: 225. 1942.

**Grammitis vodonaivalui** (Brownlie) Christenh., comb. nov. Basionym: *Ctenopteris vodonaivalui* Brownlie, *Nova Hedwigia Beih.* 55: 357. 1977.

**Grammitis vomaeensis** (Brownlie) Christenh., comb. nov. Basionym: *Ctenopteris vomaeensis* Brownlie, *Nova Hedwigia Beih.* 55: 354. 1977.

**Grammitis walleri** (Maiden & Betche) Christenh., comb. nov. Basionym: *Polypodium walleri* Maiden & Betche, *Proc. Linn. Soc. New South Wales* 35: 799. 1910.

**Grammitis whartoniana** (C.Chr.) Christenh., comb. nov. Basionym: *Polypodium whartonianum* C.Chr., *Brittonia* 2: 309. 1937.

**Grammitis wooronooran** (Bailey) Christenh., comb. nov. Basionym: *Vittaria wooronooran* Bailey, not: *Grammitis wurunuran* Parris

**Grammitis wurdackii** (L.E.Bishop) Christenh., comb. nov. Basionym: *Cochlidium wurdackii* L.E.Bishop, *Amer. Fern J.* 68: 93. 1978.

**Grammitis yoderi** (Copel.) Christenh., comb. nov. Basionym: *Polypodium yoderi* Copel., *Philipp. J. Sci.* 1(Suppl. 2): 161. 1906.

**Grammitis zenkeri** (Hieron.) Christenh., comb. nov. Basionym: *Polypodium zenkeri* Hieron., *Bot. Jahrb. Syst.* 46: 385. 1911.

**Lastreopsis poecilophlebia** (Hook.) Christenh., comb. nov. Basionym: *Polypodium poecilophlebium* Hook., *Sp. Filic.* 5: 14. 1863.

**Lomariopsis pteridiformis** (Ces.) Christenh., comb. nov. Basionym: *Gymnogramma pteridiformis* Ces., *Rendiconti Accad. Sci. Soc. Borbon. Napoli* 16: 27, 30. 1877.

**Selliguea amplexifolia** (Christ) Christenh., comb. nov. Basionym: *Polypodium amplexifolium* Christ, *J. Bot. (Morot) sér. 2, 1:* 237, 269. 1908.

**Selliguea brachypodia** (Copel.) Christenh., comb. nov. Basionym: *Polypodium brachypodium* Copel., *Phil. Journ. Sci.*, C 12: 62. 1917.

**Selliguea cesatiana** (Baker) Christenh., comb. nov. Basionym: *Polypodium cesatianum* Baker, *J. Bot.* 42. 1879.

**Selliguea cyrtomioides** (S.G.Lu & C.D.Xu) Christenh., comb. nov. Basionym: *Arthromeris cyrtomioides* S.G.Lu & C.D.Xu, *Acta Phytotax. Sin.* 45: 83. 2007.

**Selliguea elegans** (Ching) Christenh., comb. nov. Basionym: *Arthromeris elegans* Ching, *Sunyatienia* 6: 8. 1941.

**Selliguea espinosae** (Weath.) Christenh., comb. nov. Basionym: *Polypodium espinosae* Weath., *Contr. Gray Herb.* 85: 15. 1929.

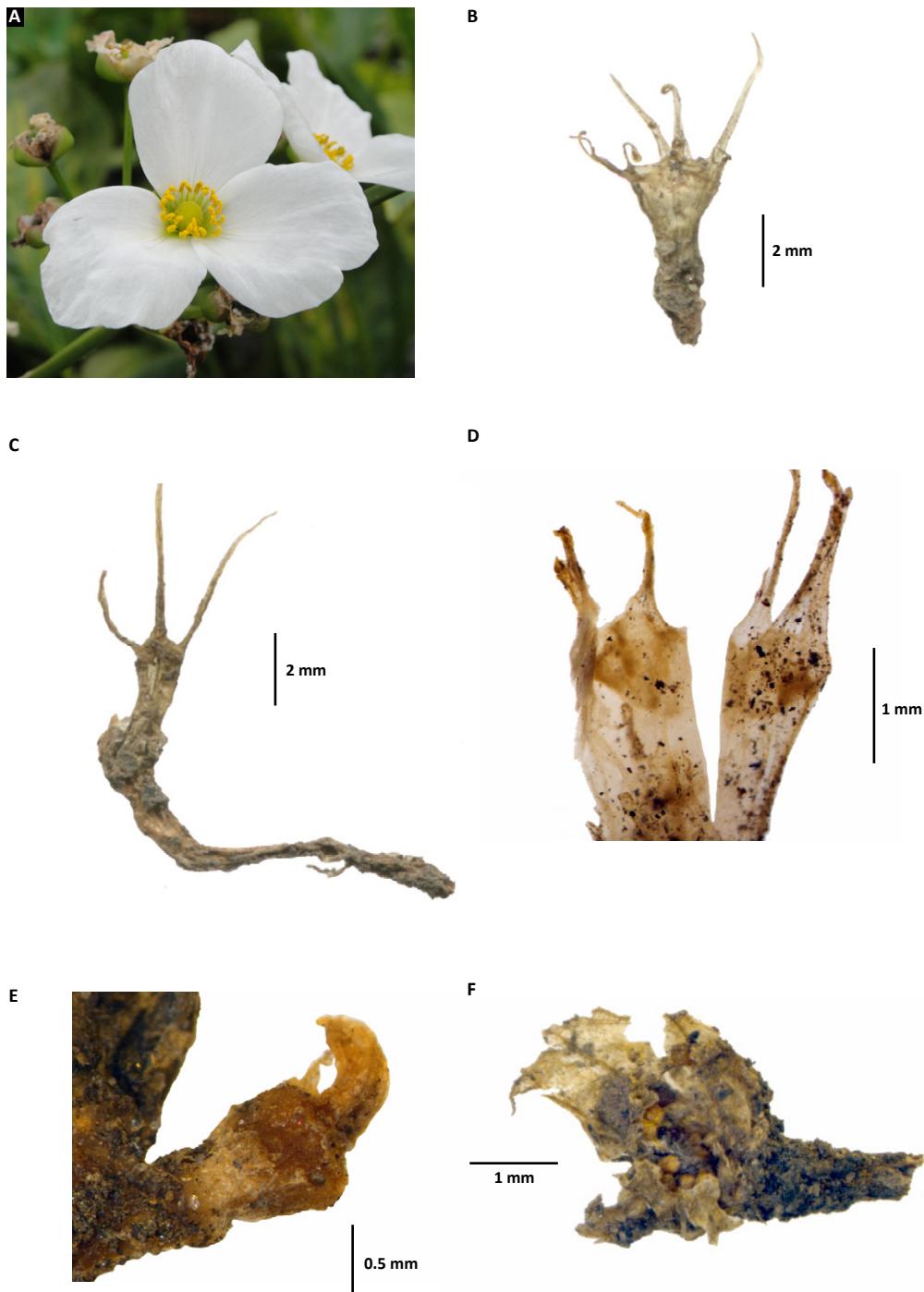
**Selliguea feuillei** (Bertero) Christenh., comb. nov. Basionym: *Polypodium feuillei* Bertero, *Mercurio*

- Chileno*: 745. 1829.
- Selliguea fraserjenkensis (Kholia) Christenh., comb. nov.** Basionym: *Pichisermoloides fraserjenkensis* Kholia, *Ferns & Fern-Allies Sikkim* 2: 137. 2014, as 'fraser-jenkinsonii'.
- Selliguea himalayensis (Hook.) Christenh., comb. nov.** Basionym: *Polypodium himalayense* Hook., *Sp. Filic.* 5: 91. 1864.
- Selliguea himalovata (Fraser-Jenk. & Kandel) Christenh., comb. nov.** Basionym: *Arthromeris himalovata* Fraser-Jenkins & Kandel, *Ferns & Fern-Allies Nepal* 1: 34. 2015.
- Selliguea hovenkampiana Christenh., nom. nov.** Replaced synonym: *Polypodium wallichianum* Spreng., *Syst. Veg.* 4: 53. 1827, not: *Selliguea wallichiana* Hook. Etymology: Named for Peter Hovenkamp, for his contribution to the taxonomy of Asian Polypodiaceae.
- Selliguea lehmannii (Mett.) Christenh., comb. nov.** Basionym: *Polypodium lehmannii* Mett., *Abh. Senckenberg. Naturf. Gesell.* 1: 117. 1856.
- Selliguea leucophora (Baker) Christenh., comb. nov.** Basionym: *Polypodium leucophorum* Baker, *J. Linn. Soc., Bot.* 22: 229. 1886.
- Selliguea lui Christenh., nom. nov.** Replaced synonym: *Arthromeris nigropaleacea* S.G.Lu, *Indian Fern J.* 14: 144. 1997, not: *Selliguea nigropaleacea* (Ching) S.G.Lu, Hovenkamp & M.G.Gilbert. Etymology: Named for Shu Gang Lu, who first described this species.
- Selliguea lungtauensis (Ching) Christenh., comb. nov.** Basionym: *Arthromeris lungtauensis* Ching, *Contr. Inst. Bot. Natl. Acad. Peiping* 2: 98. 1933.
- Selliguea mairei (Brause) Christenh., comb. nov.** Basionym: *Polypodium mairei* Brause, *Hedwigia* 64: 208, 1914.
- Selliguea phluangensis (Tagawa & K.Iwats.) Christenh., comb. nov.** Basionym: *Arthromeris phluangensis* Tagawa & K.Iwats., *Acta Phytotax. Geobot.* 22: 100. 1967.
- Selliguea proavita (Copel.) Christenh., comb. nov.** Basionym: *Polypodium proavitum* Copel., *Philipp. J. Sci., C* 8: 347. 1909.
- Selliguea proteus (Copel.) Christenh., comb. nov.** Basionym: *Polypodium proteus* Copel., *Philipp. J. Sci. 1(Suppl. 2)*: 164, 1906.
- Selliguea subebenipes (Ching) Christenh., comb. nov.** Basionym: *Phymatopsis subebenipes* Ching, *Acta Phytotax. Sin.* 9: 193. 1964.
- Selliguea tatsienensis (Franch & Bureau) Christenh., comb. nov.** Basionym: *Polypodium tatsienense* Franch. & Bureau in Christ, *Bull. Soc. Bot. France* 52 (Mém. 1): 19. 1905.
- Selliguea tenuicauda (Hook.) Christenh., comb. nov.**
- Basionym: *Polypodium tenuicaudum* Hook., *Sp. Filic.* 5: 90. 1864, as' *tenuicauda*'.
- Selliguea tomentosa (W.M.Chu) Christenh., comb. nov.** Basionym: *Arthromeris tomentosa* W.M.Chu, *Acta Bot. Yunnan.*, *Suppl.* 5: 53. 1992.
- Selliguea translucens (Kunze) Christenh., comb. nov.** Basionym: *Polypodium translucens* Kunze, *Anal. Pterid.*: 16. 1837.
- Selliguea wardii (C.B.Clarke) Christenh., comb. nov.** Basionym: *Polypodium wardii* C.B.Clarke, *J. Linn. Soc., Bot.* 25: 99. 1890.
- 
- G4. Welwitschiaceae** Reference: Leuenberger (2001).
- Note:** This taxon is geographically isolated with numerous differences in male cone structure compared to the other known species, *Welwitschia mirabilis* Hook., and is probably better treated as a separate species. It is the second species known for this formerly monotypic family.
- Welwitschia namibiana (Leuenb.) Christenh. & Byng, comb. & stat. nov.** Basionym: *Welwitschia mirabilis* Hook.f. subsp. *namibiana* Leuenb., *Willdenowia* 31: 375. 2001.
- 
- 30. Alismataceae.** Reference: Lehtonen & Myllys (2008).
- Note:** *Echinodorus bertero* (Spreng.) Fassett, type of the genus *Echinodorus*, is found separate from the remainder of *Echinodorus*, often with other genera like *Albidella*, *Alisma* or *Baldellia* interdigitated. A new genus for the latter is therefore hereby proposed.
- Aquarius Christenh. & Byng, gen. nov.** Perennial aquatic plants, submerged or emergent. Similar to *Echinodorus*, but not annual and lacking winged ribs on the achenes. **Type:** *A. cordifolius* (L.) Christenh. & Byng. **Etymology:** Named for the star sign Aquarius, as this is a plant of aquatic nature.
- Aquarius bracteatus (Micheli) Christenh. & Byng, comb. nov.** Basionym: *Echinodorus bracteatus* Micheli in A.L.P.de Candolle & A.C.P.de Candolle (eds.), *Monogr. Phan.* 3: 59. 1881.
- Aquarius cordifolius (L.) Christenh. & Byng, comb. nov.** Basionym: *Alisma cordifolium* L., *Sp. Pl.*: 343. 1753.
- Aquarius cylindricus (Rataj) Christenh. & Byng, comb. nov.** Basionym: *Echinodorus cylindricus* Rataj, *Stud. CSA* V 2: 66. 1975.
- Aquarius decumbens (Kasselm.) Christenh. & Byng, comb. nov.** Basionym: *Echinodorus decumbens* Kasselm., *Aqua Pl.* 25: 5. 2000.
- Aquarius densinervis (Somogyi) Christenh. & Byng, comb. nov.** Basionym: *Echinodorus densinervis*



Figure 7: **Angiosperms (Monocots).** *Oceania serrulata* (R.Br.) Byng & Christenh., comb. nov.. Image used with permission by Naturalis Biodiversity Center.

- Somogyi, Phyton (Horn) 51: 151. 2011.
- Aquarius emersus (Lehtonen) Christenh. & Byng, comb. nov.** Basionym: *Echinodorus emersus* Lehtonen, Kew Bull. 63: 538. 2009.
- Aquarius floribundus (Seub.) Christenh. & Byng, comb. nov.** Basionym: *Alisma floribundum* Seub. in C.F.P. von Martius (ed.), Fl. Bras. 3(1): 109. 1847.
- Aquarius glaucus (Rataj) Christenh. & Byng, comb. nov.** Basionym: *Echinodorus glaucus* Rataj, Stud. CSA V 2: 69. 1975.
- Aquarius grandiflorus (Cham. & Schltdl.) Christenh. & Byng, comb. nov.** Basionym: *Alisma grandiflorum* Cham. & Schltdl., Linnaea 2: 152. 1827. (Figure 6A)
- Aquarius grisebachii (Small) Christenh. & Byng, comb. nov.** Basionym: *Echinodorus grisebachii* Small, N. Amer. Fl. 17: 46. 1909.
- Aquarius horizontalis (Rataj) Christenh. & Byng, comb. nov.** Basionym: *Echinodorus horizontalis* Rataj, Folia Geobot. Phytotax. 4: 335. 1969.
- Aquarius inpaui (Rataj) Christenh. & Byng, comb. nov.** Basionym: *Echinodorus inpaui* Rataj, Akvar. Terar. 24: 20. 1981.
- Aquarius lanceolatus (Rataj) Christenh. & Byng, comb. nov.** Basionym: *Echinodorus lanceolatus* Rataj, Bull. Jard. Bot. Natl. Belg. 38: 406. 1968.
- Aquarius longipetalus (Micheli) Christenh. & Byng, comb. nov.** Basionym: *Echinodorus longipetalus* Micheli in A.L.P.de Candolle & A.C.P.de Candolle (eds.), Monogr. Phan. 3: 60. 1881.
- Aquarius longiscapus (Arechav.) Christenh. & Byng, comb. nov.** Basionym: *Echinodorus longiscapus* Arechav., Anales Mus. Nac. Montevideo 4(1): 67. 1902.
- Aquarius macrophyllus (Kunth) Christenh. & Byng, comb. nov.** Basionym: *Alisma macrophyllum* Kunth, Enum. Pl. 3: 151. 1841.
- Aquarius major (Micheli) Christenh. & Byng, comb. nov.** Basionym: *Echinodorus martii* var. *major* Micheli in A.L.P.de Candolle & A.C.P.de Candolle (eds.), Monogr. Phan. 3: 49 (1881).
- Aquarius palifolius (Nees & Mart.) Christenh. & Byng, comb. nov.** Basionym: *Sagittaria palifolia* Nees & Mart., Nova Acta Phys.-Med. Acad. Caes. Leop.-Carol. Nat. Cur. 11: 21. 1823.
- Aquarius paniculatus (Micheli) Christenh. & Byng, comb. nov.** Basionym: *Echinodorus paniculatus* Micheli in A.L.P.de Candolle & A.C.P.de Candolle (eds.), Monogr. Phan. 3: 51. 1881.
- Aquarius pubescens (Mart. ex Schult.f.) Christenh. & Byng, comb. nov.** Basionym: *Alisma pubescens* Mart. ex Schult.f. in J.J.Roemer & J.A.Schultes, Syst. Veg., ed. 15 bis 7: 1608. 1830.
- Aquarius reptilis (Lehtonen) Christenh. & Byng, comb. nov.** Basionym: *Echinodorus reptilis* Lehtonen, Kew Bull. 63: 548. 2009.
- Aquarius scaber (Rataj) Christenh. & Byng, comb. nov.** Basionym: *Echinodorus scaber* Rataj, Folia Geobot. Phytotax. 4: 438. 1969.
- Aquarius subulatus (Mart. ex Schult.f.) Christenh. & Byng, comb. nov.** Basionym: *Alisma subalatum* Mart. ex Schult.f. in J.J.Roemer & J.A.Schultes, Syst. Veg., ed. 15 bis 7: 1609. 1830.
- Aquarius triplatus (MicFassettheli) Christenh. & Byng, comb. nov.** Basionym: *Echinodorus triplatus* Fassett, Rhodora 57: 179. 1955.
- Aquarius tunicatus (Small) Christenh. & Byng, comb. nov.** Basionym: *Echinodorus tunicatus* Small, N. Amer. Fl. 17: 48. 1909.
- Aquarius uruguayensis (Arechav.) Christenh. & Byng, comb. nov.** Basionym: *Echinodorus uruguayensis* Arechav., Anales Mus. Nac. Montevideo 4: 66. 1902.
- 32. Hydrocharitaceae.** References: Les *et al.* (2006), Chen *et al.* (2012).
- Note:** *Egeria* Planch. is embedded in *Elodea* Michx. and is hereby transferred. *Limnobium* Rich. is part of *Hydrocharis* L. and the combination is here made.
- Elodea heterostemon (S.Koehler & C.P.Bove) Byng & Christenh., comb. nov.** Basionym: *Egeria heterostemon* S.Koehler & C.P.Bove, Novon 11: 63. 2001.
- Hydrocharis laevigata (Humb. & Bonpl. ex Willd.) Byng & Christenh., comb. nov.** Basionym: *Salvinia laevigata* Humb. & Bonpl. ex Willd., Sp. Pl., ed. 4, 5: 537. 1810.
- 41. Cymodoceaceae.** Reference: Petersen *et al.* (2014).
- Note:** Molecular and morphological evidence warrants a separate genus status for *Cymodocea serrulata* (R.Br.) Asch. & Magnus, which is described below.
- Oceana Byng & Christenh., gen. nov.** Dioecious marine plants. Rhizomes creeping, thick, smooth. Leaves linear with rounded apices, and serrulate margins, intrafoliar, leaf scars open, ligules narrowly truncate. Perianth lacking. Staminate flowers stalked, stamens two. Pistillate flowers sessile, with two free ovaries, stigma subsessile, placentation apical. Fruit non-fleshy. **Type:** *Oceana serrulata* (R.Br.) Byng & Christenh. **Distribution:** Egypt to Mozambique and Madagascar to the Western Pacific. **Note:** The genus is similar to *Cymodocea* K.D. Koenig but differs by not having the leaf sheaths completely surrounding the stem and broadly triangular, leaving open scars, and the distinctly serrulate leaf margins. **Etymology:** Named for Oceanus, divine personification of the sea in Greek and Roman mythology.
- Oceana serrulata (R.Br.) Byng & Christenh., comb. nov.** Basionym: *Caulinia serrulata* R.Br., Prodr. Fl. Nov.



**Figure 6: Angiosperms (Monocots).** A, *Aquarius grandiflorus* (Cham. & Schltdl.) Christenh. & Byng; B–F, *Oxygyne confusa* Bidault, Merckx & Byng - B–C, flowering plants; D, open perianth; E, immature capsule with persistent perianth; and F, mature open fruit showing seeds. Images: A, © Maarten Christenhusz, B–F, © Ehoarn Bidault.

Holland.: 339. 1810. **Type:** AUSTRALIA. R. Brown 5813 (holotype BM [BM000907122]!). (Figure 7)

**44. Burmanniaceae.** References: Merckx *et al.* (2006, 2009, 2013, 2017).

**Note:** While reviewing the taxonomy of Dioscoreales (e.g. Merckx *et al.*, 2013) an interesting specimen from the Central African Republic was discovered in the genus *Oxygyne* Schltr. and is described here as a new species. Additionally *Gymnosiphon* Blume is expanded to include *Cymbocarpa* Miers.

***Gymnosiphon saccatum* (Sandwith) Merckx & Byng, comb. nov.** Basionym: *Cymbocarpa saccata* Sandwith, Bull. Misc. Inform. Kew 1931(1): 60. 1931.

***Gymnosiphon urbanii* (K.I.Goebel & Sussenguth) Merckx & Byng, comb. nov.** Basionym: *Cymbocarpa urbanii* K.I.Goebel & Sussenguth, Flora 117: 80. 1924, as 'urbanii'.

***Oxygyne confusa* Bidault, Merckx & Byng, sp. nov.** (Figures 6B–F). The species differs from the other known African *Oxygyne* species, *O. triandra* Schltr., in its smaller flower size and by having protruding stamens inserted on the perianth lobes, 1 mm above their base. It is an achlorophyllous, mycoheterotrophic, glabrous herb. Roots are adventitious on a creeping stem, up to 2 mm long. Stems are simple, creeping for 1 cm and erect at apex for 5 mm. Inflorescence 1 or 2-flowered; peduncle ca. 0.5–1.0 mm long, with 3–8 bracts at the base of flowers, scale-like, 2–3 mm long, lanceolate, apex acute, green, caducous. Flowers are erect, green at base, brown-yellowish, 7–8 × 2–3 mm. Perianth segments are fused, 6-lobed, tube campanulate, 2.0–2.8 mm long, longitudinal veins on the outer surface; perianth lobes are white, filiform, 3–6 mm long; perianth with an annular corona at throat, ca. 0.6 mm long, apex lobed. Stamens 3, equal, attached to base of perianth lobes, protruding; filaments ca. 1 mm long, inflexed; anthers basifix, bithecal, introrse, 0.5 mm long, white. Ovary ca. 1.0 × 0.7 mm long, white; placentation parietal, ovules many (ca. 40), ca. 0.1 mm in diameter; style 1, ca. 1 mm long, thick, ending in 3 short, triangular stigmatic branches, ca. 0.25 × 0.2 mm. Fruits are capsular, ovoid, 1.5–2.0 × 1.0–1.2 mm, opening apically, persistent perianth. Seeds polygonal, 0.3–0.4 × 0.15–0.2 mm, slightly flattened, testa reticulate, radicle occasionally emergent at the apex. **Type:** CENTRAL AFRICAN REPUBLIC. Balimbwa, 40 km north of Bambari, 28 July 1928, C.Tisserant 2623 (holotype P [P00319729]!; isotypes BM [BM000803697], P [P00319728]!). **Note and etymology:** The sole specimen for this species has had a long determination history. When Charles Tisserant collected his 2653 specimen, he preliminary identified it as *Hydnora* Thunb. In 1983, Luis Diego Gómez Pignataro identified the specimen

as a new species of *Thismia* Griff. and gave it the name "*T.intermedia*" because he thought the species had intermediate characters between *Thismia* and *Bagnisia* Becc., but the species was never described. Thassilo Franke studied several mycoheterotrophic species in Cameroon (Franke 2004, Franke *et al.* 2004, Sainge & Franke 2005, Sainge *et al.* 2005) and determined the specimen as possibly belonging to *Oxygyne*, but was uncertain about the number of stamens and so did not describe the species. As a result we decided to give the species the epithet 'confusa' because of its long history of confusion by several botanists.

**46. Triuridaceae** Reference: Mennes *et al.* (2013).

**Note:** The pantropical genus *Sciaphila* Blume is paraphyletic due to the inclusion of *Seychellaria* Hemsley and *Andrurus* Schltr. and to maintain these genera as distinct would require *Sciaphila* to be split into several genera. Morphologically *Seychellaria* and *Andrurus* can be distinguished from *Sciaphila* mainly based on the presence of staminodes and appendages on the connectives, respectively, in male flowers. If *Sciaphila* were to be split it is highly likely any differences between any resulting genera would be distinguishable by similar minute floral characters or completely lacking any synapomorphies. We therefore prefer to synonymise both *Seychellaria* and *Andrurus* with *Sciaphila*.

***Sciaphila barbata* (Nuraliev & Cheek) Merckx & Byng, comb. nov.** Basionym: *Seychellaria barbata* Nuraliev & Cheek, Phytotaxa 268: 23. 2016.

***Sciaphila mwanihanensis* Merckx & Byng, nom. nov.** Replaced synonym: *Seychellaria africana* Vollesen, Kew Bull. 36: 733. 1982, not: *Sciaphila africana* A.Chev. Etymology: Named after the Mwanihana Forest Reserve in Tanzania, the only known locality of the species.

***Sciaphila madagascariensis* (C.H.Wright) Merckx & Byng, comb. nov.** Basionym: *Seychellaria madagascariensis* C.H.Wright, Bull. Misc. Inform. Kew 1912: 196. 1912.

***Sciaphila perrieri* (Schltr.) Merckx & Byng, comb. nov.** Basionym: *Seychellaria perrieri* Schltr., Notizbl. Bot. Gart. Berlin-Dahlem 7: 318. 1923.

***Sciaphila thomassetii* (Hemsl.) Merckx & Byng, comb. nov.** Basionym: *Seychellaria thomassetii* Hemsl., Ann. Bot. (Oxford) 21: 74. 1907.

**66. Hypoxidaceae.** Reference: Kocyan *et al.* (2011).

**Note:** *Curculigo* Gaertn. is paraphyletic if genera like *Molineria* Colla and *Hypoxidia* F.Friedmann are accepted. We hereby treat it in the broad sense, because morphologically these species are relatively

- similar.
- Curculigo maheensis* (F.Friedmann) Christenh. & Byng, comb. nov.** Basionym: *Hypoxidia maheensis* F.Friedmann, Bull. Mus. Natl. Hist. Nat., B, Adansonia sér. 4, 6: 459. 1985.
- Curculigo fakimensis* (Odyuo, D.K.Roy & Khamdi) Christenh. & Byng, comb. nov.** Basionym: *Molineria fakimense* Odyuo, D.K.Roy & Khamdi, Rheedea 26: 131. 2016.
- 70. Iridaceae** References: Rodriguez & Sytsma (2006), Lovo et al. (2012).
- Note:** *Trimezia* Salisb. ex Herb. is expanded to include the entire tribe Trimezieae, as the traditional genera are not monophyletic and differences between genera are minute. *Tigridia* Juss. is thus expanded to prevent polyphyly.
- Tigridia citrina* (Cruden) Christenh. & Byng, comb. nov.** Basionym: *Sessilantha citrina* Cruden, Brittonia 27: 108. 1975.
- Tigridia heliantha* (Ravenna) Christenh. & Byng, comb. nov.** Basionym: *Nemastylis latifolia* subsp. *heliantha* Ravenna, Bonplandia (Corrientes) 2: 283. 1968.
- Trimezia barretoi* (R.C.Foster) Christenh. & Byng, comb. nov.** Basionym: *Pseudotrimenzia barretoi* R.C.Foster, Contr. Gray Herb. 155: 8. 1945.
- Trimezia brevistaminea* (Chukr) Christenh. & Byng, comb. nov.** Basionym: *Pseudotrimenzia brevistaminea* Chukr, Cad. Estud. Pesq., UNIP (São Paulo) 7: 3. 2001.
- Trimezia castaneomaculata* (A.Gil & M.C.E.Amaral) Christenh. & Byng, comb. nov.** Basionym: *Neomarica castaneomaculata* A.Gil & M.C.E.Amaral, Phytotaxa 286: 90. 2016.
- Trimezia cipoana* (Ravenna) Christenh. & Byng, comb. nov.** Basionym: *Pseudotrimenzia cipoana* Ravenna, Revista Inst. Munic. Bot. 3: 25. 1969.
- Trimezia concava* (Ravenna) Christenh. & Byng, comb. nov.** Basionym: *Pseudotrimenzia concava* Ravenna, Onira 1: 49. 1988.
- Trimezia concolor* Christenh. & Byng, nom. nov.** Replaced synonym: *Pseudotrimenzia gracilis* Chukr, Bol. Bot. Univ. São Paulo 13: 104. 1992, not: *Trimezia gracilis* (Herb.) Christenh. Etymology: From Latin, of the same colour, because this species lacks any markings in the flower.
- Trimezia datensis* (Ravenna) Christenh. & Byng, comb. nov.** Basionym: *Pseudotrimenzia datensis* Ravenna, Onira 11: 25. 2007.
- Trimezia diamantinensis* (Ravenna) Christenh., comb. nov.** Basionym: *Pseudotrimenzia diamantinensis* Ravenna, Onira 5: 6. 2000.
- Trimezia eburnea* (A.Gil & M.C.E.Amaral) Christenh. & Byng, comb. nov.** Basionym: *Neomarica eburnea* A.Gil & M.C.E.Amaral, Nordic J. Bot. 34: 559. 2016.
- A.Gil & M.C.E.Amaral, Phytotaxa 164: 48. 2014.
- Trimezia elegans* (Ravenna) Christenh., comb. nov.** Basionym: *Pseudotrimenzia elegans* Ravenna, Onira 1: 48. 1988.
- Trimezia floscella* (A.Gil & M.C.E.Amaral) Christenh. & Byng, comb. nov.** Basionym: *Neomarica floscella* A.Gil & M.C.E.Amaral, Phytotaxa 164: 51. 2014.
- Trimezia fulva* (Ravenna) Christenh. & Byng, comb. nov.** Basionym: *Pseudotrimenzia fulva* Ravenna, Onira 5: 5. 2000.
- Trimezia gracilis* (Herb.) Christenh. & Byng, comb. nov.** Basionym: *Marica gracilis* Herb., Bot. Mag. 66: t. 3713. 1839.
- Trimezia imbricata* (Hand.-Mazz.) Christenh. & Byng, comb. nov.** Basionym: *Marica imbricata* Hand.-Mazz., Denkschr. Kaiserl. Akad. Wiss., Wien. Math.-Naturwiss. Kl. 79: 215. 1908.
- Trimezia involuta* (A.Gil & M.C.E.Amaral) Christenh. & Byng, comb. nov.** Basionym: *Neomarica involuta* A.Gil & M.C.E.Amaral, Phytotaxa 286: 93. 2016.
- Trimezia itacambirea* (Ravenna) Christenh. & Byng, comb. nov.** Basionym: *Pseudotrimenzia itacambirea* Ravenna, Revista Inst. Munic. Bot. 3: 26. 1969.
- Trimezia laevis* (Ravenna) Christenh. & Byng, comb. nov.** Basionym: *Pseudotrimenzia laevis* Ravenna, Onira 5: 7. 2000.
- Trimezia longifolia* (Link & Otto) Christenh. & Byng, comb. nov.** Basionym: *Marica longifolia* Link & Otto, Icon. Pl. Select. 10: 123. 1828. (Figure 8A)
- Trimezia monticola* (Klatt) Christenh. & Byng, comb. nov.** Basionym: *Lansbergia monticola* Klatt in Mart., Fl. Bras. 3(1): 526. 1871.
- Trimezia nana* (Lovo & Mello-Silva) Christenh. & Byng, comb. nov.** Basionym: *Pseudotrimenzia nana* Lovo & Mello-Silva, Phytotaxa 195: 146. 2015.
- Trimezia pumila* (Ravenna) Christenh. & Byng, comb. nov.** Basionym: *Pseudotrimenzia pumila* Ravenna, Onira 5: 8. 2000.
- Trimezia recurvata* (Ravenna) Christenh. & Byng, comb. nov.** Basionym: *Pseudotrimenzia recurvata* Ravenna, Revista Inst. Munic. Bot. 3: 27. 1969.
- Trimezia rigida* (Ravenna) Christenh. & Byng, comb. nov.** Basionym: *Trimezia caerulea* subsp. *rigida* Ravenna, Onira 1: 13. 1988.
- Trimezia sergipensis* (A.Gil & M.C.E.Amaral) Christenh. & Byng, comb. nov.** Basionym: *Neomarica sergipensis* A.Gil & M.C.E.Amaral, Nordic J. Bot. 34: 559. 2016.
- Trimezia setacea* (Klatt) Christenh. & Byng, comb. nov.** Basionym: *Lansbergia setacea* Klatt, Abh. Naturf. Ges. Halle 15: 364. 1882.
- Trimezia speciosa* (Chukr & A.Gil) Christenh. & Byng, comb. nov.** Basionym: *Pseuduris speciosa* Chukr &



**Figure 8: Angiosperms (Monocots).** A, *Trimezia longifolia* (Link & Otto) Christenh. & Byng; B, *Gilliesia atropurpurea* (Phil.) M.F.Fay & Christenh.; C, *Hippeastrum atamasco* (L.) Christenh. & Byng; D, *Hippeastrum zephyranthum* Christenh. & Byng; E, *Dracaena dawei* (Stapf) Byng & Christenh.; and F, *Dracaena parva* (N.E.Br.) Byng & Christenh.. All images © Maarten Christenhuz.

- A.Gil, *Proc. Calif. Acad. Sci.*, ser. 4, 59: 725. 2008.
- Trimezia striata* (Lovo & Mello-Silva) Christenh. & Byng, comb. nov.** Basionym: *Pseudotrimenzia striata* Lovo & Mello-Silva, *Phytotaxa* 195: 149. 2015.
- Trimezia synandra* (Ravenna) Christenh. & Byng, comb. nov.** Basionym: *Pseudotrimenzia synandra* Ravenna, *Bol. Soc. Argent. Bot.* 10: 320. 1965.
- Trimezia tenuissima* (Ravenna) Christenh. & Byng, comb. nov.** Basionym: *Pseudotrimenzia tenuissima* Ravenna, *Revista Inst. Munic. Bot.* 3: 28. 1969.
- Trimezia warmingii* (Klatt) Christenh. & Byng, comb. nov.** Basionym: *Marica warmingii* Klatt, *Abh. Naturf. Ges. Halle* 15: 375. 1882.
- Trimezia xyridea* (Ravenna) Christenh. & Byng, comb. nov.** Basionym: *Pseudotrimenzia xyridea* Ravenna, *Onira* 1: 50. 1988.
- 73. Amaryllidaceae.** References: Meerow *et al.* (2000), Fay *et al.* (2006).
- Note:** *Gethyum* Phil. and *Solaria* Phil. are embedded in *Gilliesia* Lindl. and are hereby transferred. Similarly *Speea* Loes. is placed in *Miersia* Lindl. Additionally, *Eucharis* Planch. & Linden and *Caliphuria* Herb. are placed in *Urceolina* Rchb., where they more naturally reside and *Hippeastrum* Herb. is treated in the broad sense, including the entire clade, encompassing *Habranthus* Herb., *Rhodophiala* C.Presl, *Sprekelia* Heist. and *Zephyranthes* Herb., among others, to make the genus monophyletic.
- Gilliesia atropurpurea* (Phil.) M.F.Fay & Christenh., comb. nov.** Basionym: *Gethyum atropurpureum* Phil., *Anales Univ. Chile* 1873: 549. 1873. (Figure 8B)
- Gilliesia attenuata* (Ravenna) M.F.Fay & Christenh., comb. nov.** Basionym: *Solaria attenuata* Ravenna, *Bol. Soc. Argent. Bot.* 11: 160. 1967.
- Gilliesia brevicoalita* (Ravenna) M.F.Fay & Christenh., comb. nov.** Basionym: *Solaria brevicoalita* Ravenna, *Onira* 9: 64. 2005.
- Gilliesia curacavina* (Ravenna) M.F.Fay & Christenh., comb. nov.** Basionym: *Solaria curacavina* Ravenna, *Onira* 9: 65. 2005.
- Gilliesia cuspidata* (Harv. ex Baker) M.F.Fay & Christenh., comb. nov.** Basionym: *Ancrumia cuspidata* Harv. ex Baker, *Hooker's Icon. Pl.* 13: t. 1227. 1877.
- Gilliesia miersioides* (Phil.) M.F.Fay & Christenh., comb. nov.** Basionym: *Solaria miersioides* Phil., *Linnaea* 29: 72. 1858.
- Hippeastrum albifolium* (Traub) Christenh. & Byng, comb. nov.** Basionym: *Zephyranthes albifolia* Traub, *Pl. Life* 6: 51. 1950.
- Hippeastrum albispiritum* (Ravenna) Christenh. & Byng, comb. nov.** Basionym:
- Habranthus albispiritus* Ravenna, *Onira* 1: 54. 1988.**
- Hippeastrum albolicinum* (Cárdenas) Christenh. & Byng, comb. nov.** Basionym: *Zephyranthes albolicina* Cárdenas, *Pl. Life* 29: 39. 1973.
- Hippeastrum amambaicum* (Ravenna)** Christenh. & Byng, comb. nov. Basionym: *Habranthus amambaicus* Ravenna, *Onira* 9: 14. 2003.
- Hippeastrum americanum* (Hoffmanns.) Christenh. & Byng, comb. nov.** Basionym: *Sternbergia americana* Hoffmanns., *Verz. Pfl.-Kult.*: 179. 1824.
- Hippeastrum amoenum* (Phil.) Christenh. & Byng, comb. nov.** Basionym: *Placea amoena* Phil., *Anales Univ. Chile* 93: 145. 1896.
- Hippeastrum andagalense* (Ravenna)** Christenh. & Byng, comb. nov. Basionym: *Habranthus andagalensis* Ravenna, *Sellowia* 19: 30. 1967.
- Hippeastrum araguaiense* (Ravenna)** Christenh. & Byng, comb. nov. Basionym: *Habranthus araguaiensis* Ravenna, *Onira* 6: 41. 2001.
- Hippeastrum arenicola* (Brandegee) Christenh. & Byng, comb. nov.** Basionym: *Zephyranthes arenicola* Brandegee, *Proc. Calif. Acad. Sci.*, ser. 2, 2: 205. 1889.
- Hippeastrum argyrium* Christenh. & Byng, nom. nov.** Replaced synonym: *Habranthus argentinus* Traub, *Pl. Life* 7: 42. 1951, not: *Hippeastrum argentinum* (Pax) Hunz. Etymology: From Greek ἀργυρεῖα, silver.
- Hippeastrum arzae* (Phil.) Christenh. & Byng, comb. nov.** Basionym: *Placea arzae* Phil., *Anales Univ. Chile* 43: 541. 1873.
- Hippeastrum atamasco* (L.) Christenh. & Byng, comb. nov.** Basionym: *Amaryllis atamasco* L., *Sp. Pl.*: 292. 1753. (Figure 8C)
- Hippeastrum auratum* (Ravenna) Christenh. & Byng, comb. nov.** Basionym: *Habranthus auratus* Ravenna, *Onira* 9: 15. 2003.
- Hippeastrum australe* (Ravenna) Christenh. & Byng, comb. nov.** Basionym: *Phycella australis* Ravenna, *Pl. Life* 37: 71. 1981.
- Hippeastrum barrosianum* (Hunz. & Di Fulvio)** Christenh. & Byng, comb. nov. Basionym: *Habranthus barrosianus* Hunz. & Di Fulvio, *Kurtziana* 7: 255. 1973.
- Hippeastrum bellum* (T.M.Howard & S.Ogden)** Christenh. & Byng, comb. nov. Basionym: *Zephyranthes bella* T.M.Howard & S.Ogden, *Herbertia* 46: 105. 1991.
- Hippeastrum berteroii* (Spreng.) Christenh. & Byng, comb. nov.** Basionym: *Amaryllis berteroii* Spreng., *Syst. Veg.*, ed. 16, 2: 49. 1825. Replaced synonym: *Habranthus robustus* Herb. in Sweet, *Brit. Fl. Gard.* 4: t. 14 (1829), not: *Hippeastrum robustum* (Otto &

- A.Dietr.) A.Dietr.
- Hippeastrum biflorum** (Phil.) Christenh. & Byng, comb. nov. Basionym: *Rhodophiala biflora* Phil., *Linnaea* 29: 66. 1858.
- Hippeastrum bifolium** (Aubl.) Christenh. & Byng, comb. nov. Basionym: *Amaryllis bifolia* Aubl., *Hist. Pl. Guiane* 1: 304. 1775.
- Hippeastrum botumirimense** (R.S.Oliveira) Christenh. & Byng, comb. nov. Basionym: *Habranthus botumirimensis* R.S.Oliveira, *Kew Bull.* 64: 538. 2009.
- Hippeastrum brevipes** (Standl.) Christenh. & Byng, comb. nov. Basionym: *Zephyranthes brevipes* Standl., *Publ. Field Columb. Mus., Bot. Ser.* 4: 199. 1929.
- Hippeastrum breviscapum** (Ravenna) Christenh. & Byng, comb. nov. Basionym: *Zephyranthes breviscapa* Ravenna, *Onira* 3: 54. 1999.
- Hippeastrum brevitubum** (Herb.) Christenh. & Byng, comb. nov. Basionym: *Phycella brevituba* Herb., *Amaryllidaceae*: 154. 1837.
- Hippeastrum briquetii** (J.F.Macbr.) Christenh. & Byng, comb. nov. Basionym: *Zephyranthes briquetii* J.F.Macbr., *Publ. Field Columb. Mus., Bot. Ser.* 11: 9. 1931.
- Hippeastrum caaguazuense** (Ravenna) Christenh. & Byng, comb. nov. Basionym: *Habranthus caaguazuensis* Ravenna, *Onira* 9: 15. 2003.
- Hippeastrum caeruleum** (Griseb.) Christenh. & Byng, comb. nov. Basionym: *Amaryllis caerulea* Griseb., *Abh. Königl. Ges. Wiss. Göttingen* 24: 320. 1879.
- Hippeastrum calderense** (Ravenna) Christenh. & Byng, comb. nov. Basionym: *Habranthus calderensis* Ravenna, *Onira* 9: 13. 2003.
- Hippeastrum capivarinum** (Ravenna) Christenh. & Byng, comb. nov. Basionym: *Zephyranthes capivaria* Ravenna, *Pl. Life* 30: 35. 1974.
- Hippeastrum cardenasianum** (Traub & I.S.Nelson) Christenh. & Byng, comb. nov. Basionym: *Habranthus cardenasianus* Traub & I.S.Nelson, *Pl. Life* 13: 69. 1957.
- Hippeastrum cardinale** (C.H.Wright) Christenh. & Byng, comb. nov. Basionym: *Zephyranthes cardinalis* C.H.Wright, *Bot. Mag.* 140: t. 8553. 1914.
- Hippeastrum carinatum** (Herb.) Christenh. & Byng, comb. nov. Basionym: *Zephyranthes carinata* Herb., *Bot. Mag.* 52: t. 2594. 1825.
- Hippeastrum carmineum** (Ravenna) Christenh. & Byng, comb. nov. Basionym: *Habranthus carmineus* Ravenna, *Not. Mens. Mus. Nac. Hist. Nat.* 15: 5. 1970.
- Hippeastrum carneum** (Schult.) Christenh. & Byng, comb. nov. Basionym: *Amaryllis carnea* Schult. & Schult.f. in J.J.Roemer & J.A.Schultes, *Syst. Veg., ed. 15 bis* 7: 799. 1830. Replaced synonym: *Zephyranthes rosea* Lindl., *Bot. Reg.* 10: t. 821. 1824, not: *Hippeastrum roseum* Baker
- Hippeastrum catamarcense** (Ravenna) Christenh. & Byng, comb. nov. Basionym: *Habranthus catamarcensis* Ravenna, *Pl. Life* 30: 43. 1974.
- Hippeastrum chacoense** (Ravenna) Christenh. & Byng, comb. nov. Basionym: *Habranthus chacoensis* Ravenna, *Not. Mens. Mus. Nac. Hist. Nat.* 15(173): 4. 1970.
- Hippeastrum chichimeca** (T.M.Howard & S.Ogden) Christenh. & Byng, comb. nov. Basionym: *Zephyranthes chichimeca* T.M.Howard & S.Ogden, *Herbertia* 46: 105. 1991.
- Hippeastrum chlorosolen** (Herb.) Christenh. & Byng, comb. nov. Basionym: *Cooperia chlorosolen* Herb., *Edwards's Bot. Reg.* 22: t. 1835. 1836.
- Hippeastrum chrysanthum** (Greenm. & C.H.Thompson) Christenh. & Byng, comb. nov. Basionym: *Zephyranthes chrysanthra* Greenm. & C.H.Thompson, *Ann. Missouri Bot. Gard.* 1: 406. 1914.
- Hippeastrum ciceroanum** (M.M.Mejía & R.G.García) Christenh. & Byng, comb. nov. Basionym: *Zephyranthes ciceroana* M.M.Mejía & R.G.García, *Moscosoa* 8: 23. 1994.
- Hippeastrum citrinum** (Baker) Christenh. & Byng, comb. nov. Basionym: *Zephyranthes citrina* Baker, *Bot. Mag.* 108: t. 6605. 1882.
- Hippeastrum clintiae** (Traub) Christenh. & Byng, comb. nov. Basionym: *Zephyranthes clintiae* Traub, *Pl. Life* 8: 76. 1952.
- Hippeastrum colchicum** Christenh. & Byng, nom. nov. Replaced synonym: *Zephyranthes fosteri* Traub, *Herbertia* 7: 65. 1941, not: *Hippeastrum fosteri* (Traub) H.E.Moore. Etymology: Named for its resemblance to a member of the genus *Colchicum* (Colchicaceae).
- Hippeastrum concinnum** (Ravenna) Christenh. & Byng, comb. nov. Basionym: *Habranthus concinnus* Ravenna, *Onira* 3: 63. 1999.
- Hippeastrum conzattii** (Greenm.) Christenh. & Byng, comb. nov. Basionym: *Zephyranthes conzattii* Greenm., *Proc. Amer. Acad. Arts* 33: 473. 1898.
- Hippeastrum cordobense** (Ravenna) Christenh. & Byng, comb. nov. Basionym: *Habranthus cordobensis* Ravenna, *Onira* 6: 42. 2001.
- Hippeastrum correntinum** (Roitman, J.A.Castillo & M.R.Barrios) Christenh. & Byng, comb. nov. Basionym: *Habranthus correntinus* Roitman, J.A.Castillo & M.R.Barrios, *Bol. Soc. Argent. Bot.* 43: 153. 2008.
- Hippeastrum crassibulbum** (Ravenna)

- Christenh. & Byng, comb. nov.** Basionym: *Habranthus crassibulbus* Ravenna, *Onira* 3: 63. 1999.  
**Hippeastrum crastinum** Christenh. & Byng, nom. nov.  
Replaced synonym: *Habranthus vittatus* T.M.Howard, *Herbertia* 46: 115. 1991, not: *Hippeastrum vittatum* (L.Hér.) Herb. Etymology: The common name of this species is mañanita or tomorrow flower, hence the epithet meaning tomorrow in Latin.
- Hippeastrum crinum** Christenh. & Byng, nom. nov.  
Replaced synonym: *Habranthus spectabilis* Ravenna, *Not. Mens. Mus. Nac. Hist. Nat.* 15(173): 6. 1970, not: *Hippeastrum spectabile* M.Roem. Etymology: Named for its resemblance to a member of the genus *Crinum* (Amaryllidaceae).
- Hippeastrum crocus** Christenh. & Byng, nom. nov.  
Replaced synonym: *Zephyranthes crociflora* T.M.Howard & S.Ogden, *Herbertia* 46: 106. 1991, not: *Hippeastrum crociflorum* Rusby. Etymology: Named for its resemblance to a *Crocus* (Iridaceae).
- Hippeastrum cubense** (Urb.) Christenh. & Byng, comb. nov.  
Basionym: *Zephyranthes cubensis* Urb., *Symb. Antill.* 5: 292. 1907.
- Hippeastrum cyrtanthoides** (Sims) Christenh. & Byng, comb. nov.  
Basionym: *Amaryllis cyrtanthoides* Sims, *Bot. Mag.* 50: t. 2399. 1823.
- Hippeastrum datense** (Ravenna) Christenh. & Byng, comb. nov.  
Basionym: *Habranthus datensis* Ravenna, *Onira* 3: 58. 1999.
- Hippeastrum davidii** (Ravenna) Christenh. & Byng, comb. nov.  
Basionym: *Placea davidii* Ravenna, *Pl. Life* 37: 73. 1981.
- Hippeastrum depauperatum** (Herb.) Christenh. & Byng, comb. nov.  
Basionym: *Zephyranthes depauperata* Herb., *Amaryllidaceae*: 171. 1837.
- Hippeastrum dichromanthum** (T.M.Howard) Christenh. & Byng, comb. nov.  
Basionym: *Zephyranthes dichromantha* T.M.Howard, *Herbertia* 51: 38. 1996.
- Hippeastrum dilutum** (Ravenna) Christenh. & Byng, comb. nov.  
Basionym: *Zephyranthes diluta* Ravenna, *Onira* 3: 55. 1999.
- Hippeastrum drummondii** (D.Don in R.Sweet) Christenh. & Byng, comb. nov.  
Basionym: *Zephyranthes drummondii* D.Don in R.Sweet, *Brit. Fl. Gard.* 7: t. 328. 1836.
- Hippeastrum duarteanaum** (Ravenna) Christenh. & Byng, comb. nov.  
Basionym: *Habranthus duarteanaus* Ravenna, *Pl. Life* 30: 45. 1974.
- Hippeastrum dutillianum** (Büneker, R.E.Bastian & C.M.Costa) Christenh. & Byng, comb. nov.  
Basionym: *Tocantinia dutilliana* Büneker, R.E.Bastian & C.M.Costa, *Balduinia* 53: 6. 2016.
- Hippeastrum erectum** (Ravenna) Christenh. & Byng, comb. nov.  
Basionym: *Habranthus erectus* Ravenna,

- Not. Mens. Mus. Nac. Hist. Nat.* 15(173): 4. 1970.
- Hippeastrum erubescens** (S.Watson) Christenh. & Byng, comb. nov.  
Basionym: *Zephyranthes erubescens* S.Watson, *Proc. Amer. Acad. Arts* 25: 162. 1890.
- Hippeastrum estense** (Ravenna) Christenh. & Byng, comb. nov.  
Basionym: *Habranthus estensis* Ravenna, *Pl. Life* 30: 46. 1974.
- Hippeastrum filifolium** (Herb. ex Kraenzl.) Christenh. & Byng, comb. nov.  
Basionym: *Zephyranthes filifolia* Herb. ex Kraenzl., *Bull. Misc. Inform. Kew* 1913: 190. 1913.
- Hippeastrum flavidissimum** (Ravenna) Christenh. & Byng, comb. nov.  
Basionym: *Zephyranthes flavidissima* Ravenna, *Sellowia* 19: 28. 1967.
- Hippeastrum flavum** (Phil.) Christenh. & Byng, comb. nov.  
Basionym: *Habranthus flavus* Phil., *Anales Univ. Chile* 27: 333. 1865.
- Hippeastrum fluviatile** (Ravenna) Christenh. & Byng, comb. nov.  
Basionym: *Zephyranthes fluviialis* Ravenna, *Onira* 6: 39. 2001.
- Hippeastrum fulgens** (Hook.f.) Christenh. & Byng, comb. nov.  
Basionym: *Habranthus fulgens* Hook.f., *Bot. Mag.* 92: t. 5563. 1866.
- Hippeastrum gameleirensis** (Ravenna) Christenh. & Byng, comb. nov.  
Basionym: *Habranthus gameleirensis* Ravenna, *Onira* 3: 57. 1999.
- Hippeastrum germainii** (Phil.) Christenh. & Byng, comb. nov.  
Basionym: *Placea germainii* Phil., *Linnæa* 29: 67. 1858.
- Hippeastrum gilliesianum** (Herb.) Christenh. & Byng, comb. nov.  
Basionym: *Habranthus bagnoldii* var. *gilliesianus* Herb., *Amaryllidaceae*: 163. 1837.
- Hippeastrum glaucum** (Lindl.) Christenh. & Byng, comb. nov.  
Basionym: *Sprekelia glauca* Lindl., *Edwards's Bot. Reg.* 26(Misc.): 49. 1840.
- Hippeastrum gracile** (Herb.) Christenh. & Byng, comb. nov.  
Basionym: *Zephyranthes gracilis* Herb., *Amaryllidaceae*: 172. 1837.
- Hippeastrum gratissimum** (Ravenna) Christenh. & Byng, comb. nov.  
Basionym: *Zephyranthes gratissima* Ravenna, *Onira* 6: 38. 2001.
- Hippeastrum guachipense** (Ravenna) Christenh. & Byng, comb. nov.  
Basionym: *Habranthus guachipensis* Ravenna, *Pl. Life* 30: 43. 1974.
- Hippeastrum guaraniorum** Christenh. & Byng, nom. nov.  
Replaced synonym: *Zephyranthes paranaensis* Ravenna, *Pl. Life* 30: 37. 1974, not: *Hippeastrum paranaense* (Traub) Meerow. Etymology: Named for the Guarani tribe of the Paraná region where this species occurs.
- Hippeastrum guatemalense** (L.B.Spencer) Christenh.

- & Byng, *comb. nov.* Basionym: *Zephyranthes guatemalensis* L.B.Spencer, *Phytologia* 59: 85. 1986.
- Hippeastrum habranthum** Christenh. & Byng, *nom. nov.*  
Replaced synonym: *Habranthus goianus* Ravenna, *Pl. Life* 30: 45. 1974, not: *Hippeastrum goianum* (Ravenna) Meerow. Etymology: Named for the genus *Habranthus*, now a synonym of *Hippeastrum*.
- Hippeastrum hermokrokos** Christenh. & Byng, *nom. nov.*  
Replaced synonym: *Zephyranthes amoena* Ravenna, *Onira* 3: 54. 1999, not: *Hippeastrum amoenum* (Phil.) Christenh. & Byng. Etymology: Named for the mortal youth Krókoς, companion of Ἐρμῆς. Krokos was accidentally killed and in distress Hermes turned his body into a flower in Greek mythology.
- Hippeastrum hondurensense** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes hondurensis* Ravenna, *Onira* 3: 54. 1999.
- Hippeastrum howardii** (Traub) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes howardii* Traub, *Pl. Life* 19: 49. 1963.
- Hippeastrum immaculatum** (Traub & Clint) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus immaculatus* Traub & Clint, *Pl. Life* 13: 68. 1957.
- Hippeastrum insularum** (H.H.Hume ex Moldenke) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes insularum* H.H.Hume ex Moldenke, *Pl. Life* 8: 152. 1952.
- Hippeastrum irwinianum** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus irwinianus* Ravenna, *Pl. Life* 26: 97. 1970.
- Hippeastrum ischihualastum** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus ischihualastus* Ravenna, *Onira* 3: 65. 1999.
- Hippeastrum itaobinum** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus itaobinus* Ravenna, *Onira* 3: 56. 1999.
- Hippeastrum jonesii** (Cory) Christenh. & Byng, *comb. nov.* Basionym: *Cooperia jonesii* Cory, *Field & Lab.* 18: 45. 1950.
- Hippeastrum jujuyense** (E.Holmb.) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes jujuyensis* E.Holmb., *Anales Mus. Nac. Buenos Aires*, ser. 3, 4: 523. 1905.
- Hippeastrum katheriniae** (L.B.Spencer) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes katheriniae* L.B.Spencer, *Phytologia* 59: 86. 1986.
- Hippeastrum lacteum** (S.Moore) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes lactea* S.Moore, *Trans. Linn. Soc. London, Bot.* 4: 495. 1895.
- Hippeastrum lagesianum** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes lagesiana* Ravenna, *Onira* 6: 40. 2001.
- Hippeastrum latissimifolium** (L.B.Spencer) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes latissimifolia* L.B.Spencer, *Phytologia* 59: 86. 1986.
- Hippeastrum leonense** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus leonensis* Ravenna, *Onira* 3: 56. 1999.
- Hippeastrum leptandrum** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus leptandrus* Ravenna, *Pl. Life* 34: 87. 1978.
- Hippeastrum leucanthum** (T.M.Howard) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes leucantha* T.M.Howard, *Herbertia* 49: 94. 1994.
- Hippeastrum lilium** Christenh. & Byng, *nom. nov.*  
Replaced synonym: *Zephyranthes elegans* Ravenna, *Onira* 3: 53. 1999, not: *Hippeastrum elegans* (Spreng.) H.E.Moore. Etymology: The species resembles a lily (*Lilium*, *Liliaceae*) hence the epithet.
- Hippeastrum lindleyanum** (Herb.) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes lindleyana* Herb., *Amaryllidaceae*: 174. 1837.
- Hippeastrum longifolium** (Hemsl.) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes longifolia* Hemsl., *Diagn. Pl. Nov. Mexic.*: 55. 1880.
- Hippeastrum longipes** (Baker) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes longipes* Baker, *Bull. Misc. Inform. Kew* 1898: 225. 1898.
- Hippeastrum longistylum** (Pax) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes longistyla* Pax, *Bot. Jahrb. Syst.* 11: 320. 1889.
- Hippeastrum longitudinum** (Flory ex Flagg & G.Lom. Sm.) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes longitudina* Flory ex Flagg & G.Lom.Sm., *Herbertia* 64: 120. 2010.
- Hippeastrum lucidum** (R.S.Oliveira) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus lucidus* R.S.Oliveira, *Kew Bull.* 64: 538. 2009.
- Hippeastrum luteum** (Phil.) Christenh. & Byng, *comb. nov.* Basionym: *Placea lutea* Phil., *Linnaea* 33: 259. 1865.
- Hippeastrum maasii** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus maasii* Ravenna, *Pl. Life* 34: 85. 1978.
- Hippeastrum macrosiphon** (Baker) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes macrosiphon* Baker, *Gard. Chron.*, n.s., 16: 70. 1881.
- Hippeastrum maculatum** (L'Hér.) Christenh. & Byng, *comb. nov.* Basionym: *Amaryllis maculata* L'Hér., *Sert. Angl.*: 10. 1789.
- Hippeastrum magnoi** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus magnoi* Ravenna,

- Sellowia* 19: 31. 1967.
- Hippeastrum manpii** (Roitman, J.A.Castillo & Maza) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus neumannii* Roitman, J.A.Castillo & Maza, *Darwiniana* 46: 67. 2008.
- Hippeastrum martinezii** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus martinezii* Ravenna, *Not. Mens. Mus. Nac. Hist. Nat.* 15(173): 3. 1970.
- Hippeastrum mataicum** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus mataicus* Ravenna, *Onira* 3: 66. 1999.
- Hippeastrum medinae** (L.O.Alvarado & García-Mend.) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus medinae* L.O.Alvarado & García-Mend., *Novon* 18: 283. 2008.
- Hippeastrum mendocense** (Baker) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes mendicensis* Baker, *Handb. Amaryll.*: 36. 1888.
- Hippeastrum mesochloum** (Herb. ex Lindl.) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes mesochloa* Herb. ex Lindl., *Edwards's Bot. Reg.* 16: t. 1345. 1830.
- Hippeastrum mexicanum** (T.M.Howard) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus mexicanus* T.M.Howard, *Herbertia* 51: 42. 1996.
- Hippeastrum microcarpum** (Rusby) Christenh. & Byng, *comb. nov.* Basionym: *Atamosco microcarpa* Rusby, *Mem. New York Bot. Gard.* 7: 213. 1927.
- Hippeastrum microstigmum** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes microstigma* Ravenna, *Onira* 10: 8. 2005.
- Hippeastrum millarensis** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus millarensis* Ravenna, *Pl. Life* 37: 66. 1981.
- Hippeastrum minimum** (Herb.) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes minima* Herb., *Amaryllidaceae*: 172. 1837.
- Hippeastrum minor** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus minor* Ravenna, *Onira* 9: 13. 2003.
- Hippeastrum minutum** (Kunth) Christenh. & Byng, *comb. nov.* Basionym: *Amayllis minuta* Kunth, *Nov. Gen. Sp.* 1: 278. 1816.
- Hippeastrum miradorensis** (Kraenzl.) Christenh. & Byng, *comb. nov.* Basionym: *Cooperia miradorensis* Kraenzl., *Repert. Spec. Nov. Regni Veg.* 21: 75. 1925.
- Hippeastrum mirum** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Tocantinia mira* Ravenna, *Onira* 5: 10. 2000.
- Hippeastrum moctezumae** (T.M.Howard) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes* *moctezumae* T.M.Howard, *Herbertia* 51: 40. 1996.
- Hippeastrum modestum** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes modesta* Ravenna, *Onira* 3: 62. 1999, not: *Hippeastrum modestrum* (Phil.) Baker.
- Hippeastrum morrisclintii** (Traub & T.M.Howard) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes morrisclintii* Traub & T.M.Howard, *Pl. Life* 26: 62. 1970.
- Hippeastrum nervosum** (Herb.) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes nervosa* Herb., *Amaryllidaceae*: 172. 1837.
- Hippeastrum niveum** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus niveus* Ravenna, *Pl. Life* 26: 95. 1970.
- Hippeastrum nymphaea** (T.M.Howard & S.Ogden) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes nymphaea* T.M.Howard & S.Ogden, *Herbertia* 46: 107. 1991.
- Hippeastrum oaxacanum** (T.M.Howard) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus oaxacanus* T.M.Howard, *Herbertia* 51: 43. 1996.
- Hippeastrum oltanum** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus oltanus* Ravenna, *Onira* 6: 41. 2001.
- Hippeastrum oranense** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus oranensis* Ravenna, *Onira* 3: 64. 1999.
- Hippeastrum orellanae** (Carnevali, Duno & J.L.Tapia) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes orellanae* Carnevali, Duno & J.L.Tapia, *J. Torrey Bot. Soc.* 137: 45. 2010.
- Hippeastrum ornatum** (Miers) Christenh. & Byng, *comb. nov.* Basionym: *Placea ornata* Miers, *Edwards's Bot. Reg.* 27: t. 50. 1841.
- Hippeastrum pantanalense** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus pantanalensis* Ravenna, *Onira* 3: 59. 1999.
- Hippeastrum philadelphicum** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus philadelphicus* Ravenna, *Onira* 9: 16. 2003.
- Hippeastrum pictum** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus pictus* Ravenna, *Onira* 3: 59. 1999.
- Hippeastrum plumieri** (H.H.Hume ex Moldenke) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes plumieri* H.H.Hume ex Moldenke, *Pl. Life* 8: 152. 1952.
- Hippeastrum primulinum** (T.M.Howard & S.Ogden) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes primulina* T.M.Howard & S.Ogden,

- Herbertia* 46: 110. 1991.
- Hippeastrum pseudocrocus** (Solms) Christenh. & Byng, *comb. nov.* Basionym: *Haylockia pseudocrocus* Solms, *Bot. Zeitung (Berlin)* 65: 135. 1907. Replaced synonym: *Haylockia andina* R.E.Fr., *Nova Acta Regiae Soc. Sci. Upsal.*, ser. 4, 1: 160. 1905, not: *Hippeastrum andinum* Phil.
- Hippeastrum proctorii** (Acev.-Rodr. & M.T.Strong) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes proctorii* Acev.-Rodr. & M.T.Strong, *Contr. U.S. Natl. Herb.* 52: 115. 2005.
- Hippeastrum puertoricense** (Traub) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes puertoricensis* Traub, *Pl. Life* 7: 37. 1951.
- Hippeastrum pulchellum** (J.G.Sm.) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes pulchella* J.G.Sm., *Rep. (Annual) Missouri Bot. Gard.* 6: 114. 1895.
- Hippeastrum purpurellum** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes purpurella* Ravenna, *Onira* 8: 41. 2003.
- Hippeastrum quilmesianum** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus quilmesianus* Ravenna, *Onira* 1: 54. 1988.
- Hippeastrum refugiense** (F.B.Jones) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes refugiensis* F.B.Jones, *Rhodora* 63: 214. 1961.
- Hippeastrum riojanum** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus riojanus* Ravenna, *Pl. Life* 26: 96. 1970.
- Hippeastrum rosaleense** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes rosalensis* Ravenna, *Pl. Life* 30: 34. 1974.
- Hippeastrum royale** Christenh. & Byng, *nom. nov.* Replaced synonym: *Zephyranthes reginae* T.M.Howard & S.Ogden, *Herbertia* 46: 111. 1991, Not: *Hippeastrum reginae* (L.) Herb. Etymology: This regal species was renamed to remain royal.
- Hippeastrum rubrum** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus ruber* Ravenna, *Pl. Life* 26: 94. 1970.
- Hippeastrum ruizlealii** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus ruizlealii* Ravenna, *Pl. Life* 30: 44. 1974.
- Hippeastrum saipinense** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus saipinensis* Ravenna, *Onira* 10: 10. 2005.
- Hippeastrum salinarum** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus salinarum* Ravenna, *Not. Mens. Mus. Nac. Hist. Nat.* 15(173): 3. 1970.
- Hippeastrum saltense** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus saltensis* Ravenna, *Not. Mens. Mus. Nac. Hist. Nat.* 15(173): 6. 1970.
- Hippeastrum sanavirone** (Roitman, J.A.Castillo, G.M.Tourn & Uria) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus sanavirone* Roitman, J.A.Castillo, G.M.Tourn & Uria, *Novon* 17: 393. 2007.
- Hippeastrum scarlatinum** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Phycella scarlatina* Ravenna, *Pl. Life* 37: 69. 1981.
- Hippeastrum schulzianum** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus schulzianus* Ravenna, *Not. Mens. Mus. Nac. Hist. Nat.* 16: 8. 1972.
- Hippeastrum sessile** (Herb.) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes sessilis* Herb., *Amaryllidaceae*: 175. 1837.
- Hippeastrum simpsonii** (Chapm.) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes simpsonii* Chapm., *Fl. South. U.S., ed. 2(Suppl. 2)*: 696. 1892.
- Hippeastrum smallii** (Alexander) Christenh. & Byng, *comb. nov.* Basionym: *Cooperia smallii* Alexander, *Addisonia* 21: 7. 1939.
- Hippeastrum smilakrokos** Christenh. & Byng, *nom. nov.* Replaced synonym: *Cooperia traubii* W.Hayw., *Herbertia* 3: 64. 1936, not: *Hippeastrum traubii* (Moldenke) H.E.Moore. Etymology: Named for the mortal youth Κρόκος, who was unhappy with his love affair with the nymph Σμύλαξ and both were turned into plants, one a saffron crocus, the other a prickly bindweed in Greek mythology.
- Hippeastrum sprekeliopsis** Christenh. & Byng, *nom. nov.* Replaced synonym: *Sprekelia howardii* Lehmler, *Herbertia* 54: 230. 2000., not: *Hippeastrum howardii* (Traub) Christenh. & Byng. Etymology: Named for *Sprekelia*, a genus now included in *Hippeastrum*.
- Hippeastrum stellare** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes stellaris* Ravenna, *Sellowia* 19: 28. 1967.
- Hippeastrum stellatoroseum** (G.Lom.Sm., Spurrier, Flagg & Espejo) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes stellatorosa* G.Lom.Sm., Spurrier, Flagg & Espejo, *Novon* 24: 289. 2015.
- Hippeastrum steyermarkii** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus steyermarkii* Ravenna, *Pl. Life* 34: 85. 1978.
- Hippeastrum stigmovittatum** (Bünker, R.E.Bastian & C.M.Costa) Christenh. & Byng, *comb. nov.* Basionym: *Tocantinia stigmovittata* Bünker, R.E.Bastian & C.M.Costa, *Balduinia* 53: 8. 2016.
- Hippeastrum subflavum** (L.B.Spencer) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes subflava* L.B.Spencer, *Phytologia* 59: 87. 1986.
- Hippeastrum susatum** (Fern.Alonso & Groenend.) Christenh. & Byng, *comb. nov.* Basionym:

- Zephyranthes susatana* Fern.Alonso & Groenend., *Revista Acad. Colomb. Ci. Exact.* 28: 179. 2004.
- Hippeastrum tepicense** (Greenm. ex Flagg & G.Lom. Sm.) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus tepicensis* Greenm. ex Flagg & G.Lom. Sm., *Herbaria* 63: 175. 2009.
- Hippeastrum tilitense** (Traub & Moldenke) Christenh. & Byng, *comb. nov.* Basionym: *Amaryllis tilitensis* Traub & Moldenke, *Amaryllis Manual*: 88. 1949. Replaced synonym: *Hippeastrum laetum* Phil., *Anales Univ. Chile* 93: 157. 1890, not: *Hippeastrum laetum* Phil.
- Hippeastrum treatiae** (S.Watson) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes treatiae* S.Watson, *Proc. Amer. Acad. Arts* 14: 300. 1879.
- Hippeastrum tucumanense** (Hunz.) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes tucumanensis* Hunz., *Kurtziana* 5: 362. 1969.
- Hippeastrum tulipanum** Christenh. & Byng, *nom. nov.* Replaced synonym: *Zephyranthes nelsonii* Greenm., *Proc. Amer. Acad. Arts* 33: 473. 1898, not: *Hippeastrum nelsonii* (Cárdenas) Van Scheepen. Etymology: Named for its superficial resemblance to a species of *Tulipa* (Liliaceae).
- Hippeastrum uruguaianicum** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes uruguaianca* Ravenna, *Onira* 10: 9. 2005.
- Hippeastrum vandenbergianum** Christenh. & Byng, *nom. nov.* Replaced synonym: *Habranthus bahiensis* Ravenna, *Onira* 1: 53. 1988, not: *Hippeastrum bahiense* M.Roem. Etymology: Named for Cassio van den Berg, for his contributions to Brazilian botany.
- Hippeastrum venturiana** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Habranthus venturianus* Ravenna, *Onira* 3: 65. 1999.
- Hippeastrum wrightii** (Baker) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes wrightii* Baker, *Handb. Amaryll.*: 32. 1888.
- Hippeastrum yaviense** (Ravenna) Christenh. & Byng, *comb. nov.* Basionym: *Zephyranthes yaviensis* Ravenna, *Onira* 1: 55. 1988.
- Hippeastrum zephyranthum** Christenh. & Byng, *nom. nov.* Replaced synonym: *Amaryllis candida* Lindl., *Bot. Reg.* 9: t. 724. 1823, not: *Hippeastrum candidum* Stapf. Etymology: Named for *Zephyranthes*, now a synonym of *Hippeastrum*. (Figure 8D)
- Miersia humilis** (Phil.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Geanthus humilis* Phil., *Descr. Nuev. Pl., reimpr.* 1884: 8. 1884.
- Miersia triloba** (Ravenna) M.F.Fay & Christenh., *comb. nov.* Basionym: *Speea triloba* Ravenna, *Pl. Life* 34: 148. 1978.
- Urceolina amazonica** (Linden ex Planch.) Christenh. & Byng, *comb. nov.* Basionym: *Eucharis amazonica*

- Linden ex Planch., *J. Gén. Hort.* 12: 1216. 1857.
- Urceolina caucana** (Meerow) Christenh. & Byng, *comb. nov.* Basionym: *Eucharis caucana* Meerow, *Ann. Missouri Bot. Gard.* 76: 191. 1989.
- Urceolina cyaneosperma** (Meerow) Christenh. & Byng, *comb. nov.* Basionym: *Eucharis cyaneosperma* Meerow, *Sida* 12: 39. 1987.
- Urceolina formosa** (Meerow) Christenh. & Byng, *comb. nov.* Basionym: *Eucharis formosa* Meerow, *Sida* 12: 42. 1987.
- Urceolina moorei** (Baker) Christenh. & Byng, *comb. nov.* Basionym: *Eucharis grandiflora* var. *moorei* Baker, *Gard. Chron.*, ser. 3, 4: 628. 1888.
- Urceolina plicata** (Meerow) Christenh. & Byng, *comb. nov.* Basionym: *Eucharis plicata* Meerow, *Brittonia* 36: 18. 1984.
- Urceolina ruthiana** (L.Jost, Oleas & Meerow) Christenh. & Byng, *comb. nov.* Basionym: *Eucharis ruthiana* L.Jost, Oleas & Meerow, *PhytoKeys* 48: 6. 2015.
- 74. Asparagaceae.** References: Bos (1998), Rudall et al. (2000), Jankalski (2008), Lu & Morden (2014), Knirsch et al. (2016), Mabberley (2017), WCSP (2018).
- Note:** As traditionally circumscribed *Dracaena* L. is paraphyletic with *Sansevieria* Thunb. and part of *Pleomele* Salisb. embedded in it. As these genera are morphologically variable, but share substantial similarities, it is best treated as a single genus. Several species were already transferred into *Dracaena* and the genus was officially synonymised by Mabberley (2017), but not all combinations were made. We hereby transfer the remaining taxa to standardise the taxonomy.
- Dracaena aethiopica** (Thunb.) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria aethiopica* Thunb., *Prod. Pl. Cap.*: 65. 1794.
- Dracaena angolensis** (Welw. ex Carrière) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria angolensis* Welw. ex Carrière, *Rev. Hort. (Paris)* 1861: 447. 1861. Replaced synonym: *Sansevieria cylindrica* Bojer ex Hook., *Bot. Mag.* 85: t. 5093. 1859, not: *Dracaena cylindrica* Hook.f.
- Dracaena arborescens** (Cornu ex Gérôme & Labroy) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria arborescens* Cornu ex Gérôme & Labroy, *Bull. Mus. Hist. Nat. (Paris)* 9: 173. 1903.
- Dracaena ascendens** (L.E.Newton) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria ascendens* L.E.Newton, *Bradleya* 28: 19. 2010.
- Dracaena aubrytiana** (Carrière) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria aubrytiana*

- Carrière, *Rev. Hort. (Paris)* 1861: 449. 1861.
- Dracaena bacularis** (Pfennig ex A.Butler & Jankalski) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria bacularis* Pfennig ex A.Butler & Jankalski, *Sansevieria* 22: 3. 2010.
- Dracaena bagamoyensis** (N.E.Br.) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria bagamoyensis* N.E.Br., *Bull. Misc. Inform. Kew* 1913: 306. 1913.
- Dracaena ballyi** (L.E.Newton) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria ballyi* L.E.Newton, *Brit. Cactus Succ. J.* 22: 11. 2004.
- Dracaena bella** (L.E.Newton) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria bella* L.E.Newton, *Cact. Succ. J. (Los Angeles)* 72: 224. 2000.
- Dracaena bugandana** Byng & Christenh., *nom. nov.* Replaced synonym: *Sansevieria lineata* T.G.Forrest, *Sansevieria* 30: 11. 2013, not: *Dracaena lineata* hort. ex Baker. Etymology: This species is found in Uganda, which takes its name from the Buganda kingdom.
- Dracaena burdettii** (Chahin.) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria burdettii* Chahin., *Brit. Cactus Succ. J.* 18: 132. 2000.
- Dracaena burmanica** (N.E.Br.) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria burmanica* N.E.Br., *Bull. Misc. Inform. Kew* 1915: 228. 1915.
- Dracaena canaliculata** (Carrière) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria canaliculata* Carrière, *Rev. Hort. (Paris)* 1861: 449. 1861.
- Dracaena caulescens** (N.E.Br.) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria caulescens* N.E.Br., *Bull. Misc. Inform. Kew* 1915: 200. 1915.
- Dracaena conspicua** N.E.Br., Byng & Christenh., *comb. nov.* Basionym: *Sansevieria conspicua* N.E.Br., *Bull. Misc. Inform. Kew* 1913: 306. 1913.
- Dracaena dawei** (Stapf) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria dawei* Stapf, *J. Linn. Soc., Bot.* 37: 529. 1906. (Figure 8E)
- Dracaena dooneri** (N.E.Br.) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria dooneri* N.E.Br., *Bull. Misc. Inform. Kew* 1915: 231. 1915.
- Dracaena downsi** (Chahin.) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria downsi* Chahin., *Brit. Cactus Succ. J.* 18: 133. 2000.
- Dracaena dumetescens** (L.E.Newton) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria dumetescens* L.E.Newton, *Bradleya* 27: 157. 2009.
- Dracaena ebracteata** (Cav.) Byng & Christenh., *comb. nov.* Basionym: *Salmia ebracteata* Cav., *Icon.* 3: 24. 1795.
- Dracaena eilensis** (Chahin.) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria eilensis* Chahin., *Sansevieria* J. 4: 9. 1995.
- Dracaena erythraeae** (Mattei) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria erythraeae* Mattei, *Boll. Stud. Inform. Reale Giardino Colon.* 4: 170. 1918.
- Dracaena fasciata** (Cornu ex Gérôme & Labroy) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria fasciata* Cornu ex Gérôme & Labroy, *Bull. Mus. Hist. Nat. (Paris)* 9: 173. 1903.
- Dracaena forskaoliana** (Schult. & Schult.f.) Byng & Christenh., *comb. nov.* Basionym: *Smilacina forskaoliana* Schult. & Schult.f., *Syst. Veg., ed. 15 bis*, 7: 304. 1829, as '*forskaliana*'.
- Dracaena francisii** (Chahin.) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria francisii* Chahin., *Sansevieria* J. 4: 12. 1995.
- Dracaena frequens** (Chahin.) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria frequens* Chahin., *Cact. Succ. J. (Los Angeles)* 72: 130. 2000.
- Dracaena gracillima** (Chahin.) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria gracillima* Chahin., *Sansevieria* 12: 3. 2005.
- Dracaena hallii** (Chahin.) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria hallii* Chahin., *Sansevieria* J. 5: 7. 1996.
- Dracaena hargeisana** (Chahin.) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria hargeisana* Chahin., *Sansevieria* J. 3: 53. 1994.
- Dracaena humiflora** (D.J.Richards) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria humiflora* D.J.Richards, *Sansevieria* 10: 3. 2004.
- Dracaena xitumea** (Mbugua) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria aethiopica* subsp. *xitumea* Mbugua, *Fl. Trop. E. Afr., Dracaenac.* : 17. 2007. (= *D. serpenta* × *D. raffillii*)
- Dracaena liberica** (Gérôme & Labroy) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria liberica* Gérôme & Labroy, *Bull. Mus. Hist. Nat. (Paris)* 9: 173. 1903.
- Dracaena longiflora** (Sims) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria longiflora* Sims, *Bot. Mag.* 53: t. 2634. 1826.
- Dracaena longiflora** (Sims) Byng & Christenh. var. *fernandopoensis* (N.E.Br.) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria longiflora* var. *fernandopoensis* N.E.Br., *Bull. Misc. Inform. Kew* 1915: 257. 1915.
- Dracaena longistyla** (la Croix) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria longistyla* la Croix, *Kew Bull.* 59: 617. 2004.
- Dracaena lunatifolia** (L.E.Newton) Byng & Christenh., *comb. nov.* Basionym: *Sansevieria lunatifolia* L.E.Newton, *Cact. Succ. J. (Los Angeles)* 87: 118. 2015.
- Dracaena malawiana** Byng & Christenh., *nom. nov.* Replaced synonym: *Sansevieria formosa* Chahin., *Sansevieria* 26: 2. 2012, not: *Dracaena formosa*

hort. ex Baker. Etymology: This species is only found in Malawi, hence the name.

**Dracaena masoniana** (Chahin.) Byng & Christenb., comb. nov. Basionym: *Sansevieria masoniana* Chahin., *Cact. Succ. J. (Los Angeles)* 72: 31. 2000.

**Dracaena newtoniana** (T.G.Forrest) Byng & Christenb., comb. nov. Basionym: *Sansevieria newtoniana* T.G.Forrest, *Cact. Succ. J. (Los Angeles)* 86: 76. 2014.

**Dracaena nilotica** (Baker) Byng & Christenb., comb. nov. Basionym: *Sansevieria nilotica* Baker, *J. Linn. Soc., Bot.* 14: 548. 1875.

**Dracaena nitida** (Chahin.) Byng & Christenb., comb. nov. Basionym: *Sansevieria nitida* Chahin., *Cact. Succ. J. (Los Angeles)* 73: 120. 2001.

**Dracaena parva** (N.E.Br.) Byng & Christenb., comb. nov. Basionym: *Sansevieria parva* N.E.Br., *Bull. Misc. Inform. Kew* 1915: 233. 1915. (Figure 8F)

**Dracaena patens** (N.E.Br.) Byng & Christenb., comb. nov. Basionym: *Sansevieria patens* N.E.Br., *Bull. Misc. Inform. Kew* 1915: 210. 1915.

**Dracaena pearsonii** (N.E.Br.) Byng & Christenb., comb. nov. Basionym: *Sansevieria pearsonii* N.E.Br., *Bull. Misc. Inform. Kew* 1911: 97. 1911.

**Dracaena pedicellata** (la Croix) Byng & Christenb., comb. nov. Basionym: *Sansevieria pedicellata* la Croix, *Kew Bull.* 59: 620. 2004.

**Dracaena perrotii** (Warb.) Byng & Christenb., comb. nov. Basionym: *Sansevieria perrotii* Warb., *Tropenpflanzer* 5: 191. 1901.

**Dracaena pethera** Byng & Christenb., nom. nov. Replaced synonym: *Sansevieria kirkii* Baker, *Bull. Misc. Inform. Kew* 1887: 3. 1887, not: *Dracaena kirkii* Baker. Etymology: From Greek πεθέρα, mother-in-law.

**Dracaena pethera** Byng & Christenb. var. *pulchra* (N.E.Br.) Byng & Christenb., comb. nov. Basionym: *Sansevieria kirkii* var. *pulchra* N.E.Br., *Bull. Misc. Inform. Kew* 1915: 256. 1915.

**Dracaena pfisteri** (D.J.Richards) Byng & Christenb., comb. nov. Basionym: *Sansevieria pfisteri* D.J.Richards, *Sansevieria* 19: 4. 2009.

**Dracaena phillipsiae** (N.E.Br.) Byng & Christenb., comb. nov. Basionym: *Sansevieria phillipsiae* N.E.Br., *Hooker's Icon. Pl.* 30: t. 3000. 1913.

**Dracaena pinguicula** (P.R.O.Bally) Byng & Christenb., comb. nov. Basionym: *Sansevieria pinguicula* P.R.O.Bally, *Candollea* 19: 145. 1964.

**Dracaena pinguicula** (P.R.O.Bally) Byng & Christenb. subsp. *disticha* (Pfennig ex A.Butler) Byng & Christenb., comb. nov. Basionym: *Sansevieria pinguicula* subsp. *disticha* Pfennig ex A.Butler, *Sansevieria* 28: 17. 2012.

**Dracaena pinguicula** (P.R.O.Bally) Byng & Christenb. subsp. *nana* (Chahin.) Byng & Christenb., comb.

& stat. nov. Basionym: *Sansevieria pinguicula* var. *nana* Chahin., *Sansevieria* 30: 15. 2013.

**Dracaena powelli** (N.E.Br.) Byng & Christenb., comb. nov. Basionym: *Sansevieria powelli* N.E.Br., *Bull. Misc. Inform. Kew* 1915: 198. 1915.

**Dracaena powysii** (L.E.Newton) Byng & Christenb., comb. nov. Basionym: *Sansevieria powysii* L.E.Newton, *Bradleya* 28: 24. 2010.

**Dracaena raffillii** (N.E.Br.) Byng & Christenb., comb. nov. Basionym: *Sansevieria raffillii* N.E.Br., *Bull. Misc. Inform. Kew* 1915: 252. 1915.

**Dracaena roxburghiana** (Schult. & Schult.f.) Byng & Christenb., comb. nov. Basionym: *Sansevieria roxburghiana* Schult. & Schult.f. in *J.J.Roemer & J.A.Schultes, Syst. Veg.*, ed. 15 bis 7: 357. 1829.

**Dracaena sambiranensis** (H.Perrier) Byng & Christenb., comb. nov. Basionym: *Sansevieria sambiranensis* H.Perrier, *Notul. Syst. (Paris)* 5: 154. 1936.

**Dracaena scimitariformis** (D.J.Richards) Byng & Christenb., comb. nov. Basionym: *Sansevieria scimitariformis* D.J.Richards, *Sansevieria* 5: 8. 2002.

**Dracaena senegambica** (Baker) Byng & Christenb., comb. nov. Basionym: *Sansevieria senegambica* Baker, *J. Linn. Soc., Bot.* 14: 548. 1875.

**Dracaena serpenta** Byng & Christenb., nom. nov. Replaced synonym: *Sansevieria gracilis* N.E.Br., *Bull. Misc. Inform. Kew* 1911: 96. 1911, not: *Dracaena gracilis* Salisb. Etymology: This is often called 'snake plant', hence the epithet chosen for this species.

**Dracaena serpenta** Byng & Christenb. var. *humbertiana* (Guillaumin) Byng & Christenb., comb. nov. Basionym: *Sansevieria humbertiana* Guillaumin, *Bull. Mus. Natl. Hist. Nat.*, sér. 2, 12: 353. 1940.

**Dracaena singularis** (N.E.Br.) Byng & Christenb., comb. nov. Basionym: *Sansevieria singularis* N.E.Br., *Bull. Misc. Inform. Kew* 1911: 97. 1911. Replaced synonym: *Boophone fischeri* Baker, *Fl. Trop. Afr.* 7: 577. 1898, not: *Dracaena fischeri* Baker.

**Dracaena sinuissimorum** (Chahin.) Byng & Christenb., comb. nov. Basionym: *Sansevieria sinuissimorum* Chahin., *Sansevieria* 3: 24. 2002.

**Dracaena sordida** (N.E.Br.) Byng & Christenb., comb. nov. Basionym: *Sansevieria sordida* N.E.Br., *Bull. Misc. Inform. Kew* 1915: 214. 1915.

**Dracaena spathulata** Byng & Christenb., nom. nov. Replaced synonym: *Sansevieria concinna* N.E.Br., *Bull. Misc. Inform. Kew* 1915: 233. 1915, not: *Dracaena concinna* Kunth. Etymology: This species has spoon-like leaves, hence the name.

**Dracaena stuckyi** (God.-Leb.) Byng & Christenb., comb. nov. Basionym: *Sansevieria stuckyi* God.-Leb., *Sansev. Gigant. Afr. Or.*: 13. 1903.

**Dracaena subspicata** (Baker) Byng & Christenb., comb. nov. Basionym: *Sansevieria subspicata* Baker, *Gard.*

- Chron., ser. 3, 6: 436. 1889.
- Dracaena subtilis* (N.E.Br.) Byng & Christenh., comb. nov.** Basionym: *Sansevieria subtilis* N.E.Br., Bull. Misc. Inform. Kew 1915: 237. 1915.
- Dracaena suffruticosa* (N.E.Br.) Byng & Christenh., comb. nov.** Basionym: *Sansevieria suffruticosa* N.E.Br., Bull. Misc. Inform. Kew 1915: 202. 1915.
- Dracaena suffruticosa* (N.E.Br.) Byng & Christenh. var. *longituba* (Pfennig) Byng & Christenh., comb. nov.** Basionym: *Sansevieria suffruticosa* var. *longituba* Pfennig, Bot. Jahrb. Syst. 102: 178. 1981.
- Dracaena testudinea* Byng & Christenh., nom. nov.** Replaced synonym: *Sansevieria braunii* Engl. & Krause, Bot. Jahrb. Syst. 45: 153. 1910, not: *Dracaena braunii* Engl. Etymology: The white-mottled purplish-green leaves resemble a tortoise shell, hence the name.
- Dracaena varians* (N.E.Br.) Byng & Christenh., comb. nov.** Basionym: *Sansevieria varians* N.E.Br., Bull. Misc. Inform. Kew 1915: 209. 1915.
- Dracaena volkensii* (Gürke) Byng & Christenh., comb. nov.** Basionym: *Sansevieria volkensii* Gürke in H.G.A.Engler, Pflanzenw. Ost-Afrikas, C: 144. 1895.
- Dracaena zebra* Byng & Christenh., nom. nov.** Replaced synonym: *Sansevieria metalllica* Gérôme & Labroy, Bull. Mus. Hist. Nat. (Paris) 9: 173. 1903, not: *Dracaena metalllica* W.Bull. Etymology: This species has silver-striped leaves, like the stripes of a zebra.
- Dracaena zebra* Byng & Christenh. var. *nyasica* Byng & Christenh., comb. nov.** Basionym: *Sansevieria metalllica* var. *nyasica* N.E.Br., Bull. Misc. Inform. Kew 1915: 247. 1915.
- Drimia jackyi* (Knirsch, Mart.-Azorin & Wetschnig) Christenh. & Byng, comb. nov.** Basionym: *Rhodocodon jackyi* Knirsch, Mart.-Azorin & Wetschnig, Phytotaxa 253: 202. 2016.
- 78. Commelinaceae** References: Evans et al. (2003), Hertweck et al. (2014).
- Note:** *Callisia* Loefl. is expanded to include *Tripogandra* Raf.
- Callisia amplexans* (Handlos) Christenh. & Byng, comb. nov.** Basionym: *Tripogandra amplexans* Handlos, Rhodora 77: 242. 1975.
- Callisia amplexicaulis* (Klotzsch ex C.B.Clarke) Christenh. & Byng, comb. nov.** Basionym: *Tradescantia amplexicaulis* Klotzsch ex C.B.Clarke in A.L.P.P. de Candolle & A.C.P. de Candolle, Monogr. Phan. 3: 304. 1881.
- Callisia angustifolia* (B.L.Rob.) Christenh. & Byng, comb. nov.** Basionym: *Tradescantia angustifolia* B.L.Rob., Proc. Amer. Acad. Arts 27: 185. 1893.
- Callisia brasiliensis* (Handlos) Christenh. & Byng, comb. nov.** Basionym: *Tripogandra brasiliensis* Handlos, Rhodora 77: 253. 1975.
- Callisia diuretica* (Mart.) Christenh. & Byng, comb. nov.** Basionym: *Tradescantia diuretica* Mart., Reise Bras. 1: 281. 1823.
- Callisia elata* (D.R.Hunt) Christenh. & Byng, comb. nov.** Basionym: *Tripogandra elata* D.R.Hunt, Kew Bull. 33: 405. 1979.
- Callisia encolea* (Diels) Christenh. & Byng, comb. nov.** Basionym: *Tradescantia encolea* Diels, Bot. Jahrb. Syst. 37: 385. 1906.
- Callisia glandulosa* (Seub.) Christenh. & Byng, comb. nov.** Basionym: *Tradescantia glandulosa* Seub. in Martius (ed.), Fl. Bras. 3: 253. 1855.
- Callisia ionantha* (Diels) Christenh. & Byng, comb. nov.** Basionym: *Tradescantia ionantha* Diels, Bot. Jahrb. Syst. 37: 382. 1906.
- Callisia kruseana* (Matuda) Christenh. & Byng, comb. nov.** Basionym: *Tripogandra kruseana* Matuda, Anales Inst. Biol. Univ. Nac. México 37: 77. 1967.
- Callisia mexicana* Christenh. & Byng, nom. nov.** Replaced synonym: *Tripogandra guerrerensis* Matuda, Anales Inst. Biol. Univ. Nac. México 36: 113. 1966, not: *Callisia guerrerensis* Matuda. Etymology: This species is found in Mexico.
- Callisia montana* (Handlos) Christenh. & Byng, comb. nov.** Basionym: *Tripogandra montana* Handlos, Rhodora 77: 276. 1975.
- Callisia neglecta* (Handlos) Christenh. & Byng, comb. nov.** Basionym: *Tripogandra neglecta* Handlos, Rhodora 77: 287. 1975.
- Callisia palmeri* (Rose) Christenh. & Byng, comb. nov.** Basionym: *Tradescantia palmeri* Rose, Contr. U.S. Natl. Herb. 1: 113. 1891.
- Callisia purpurascens* (S.Schauer) Christenh. & Byng, comb. nov.** Basionym: *Tradescantia purpurascens* S.Schauer, Linnaea 19: 700. 1847.
- Callisia saxicola* (Greenm.) Christenh. & Byng, comb. nov.** Basionym: *Tradescantia saxicola* Greenm., Proc. Amer. Acad. Arts 39: 70. 1903.
- Callisia serrulata* (Vahl) Christenh. & Byng, comb. nov.** Basionym: *Commelina serrulata* Vahl, Eclog. Amer. 2: 4. 1798.
- Callisia silvatica* (Handlos) Christenh. & Byng, comb. nov.** Basionym: *Tripogandra silvatica* Handlos, Rhodora 77: 310. 1975.
- Callisia tripogandra* Christenh. & Byng, nom. nov.** Replaced synonym: *Tradescantia multiflora* Sw., Prodri. Veg. Ind. Occ.: 57. 1788, not: *Callisia multiflora* (M.Martens & Galeotti) Standl. Etymology: This species is the type of the genus *Tripogandra*, now

included in *Callisia*.

***Callisia warmingiana* (Seub.) Christenh. & Byng, comb. nov.** Basionym: *Tradescantia warmingiana* Seub., *Vidensk. Meddel. Naturhist. Foren. Kjøbenhavn* 1872: 126. 1872.

***Cyanotis kewoides* Christenh. & Byng, nom. nov.** Replaced synonym: *Belosynapsis kewensis* Hassk., *Flora* 54: 259. 1871, not: *Cyanotis kewensis* C.B.Clarke. Etymology: This species has a superficial resemblance to *Kewa* (Kewaceae).

**91. Bromeliaceae.** References: Barfuss *et al.* (2005), Givnish *et al.* (2011), Evans *et al.* (2015).

**Note:** To prevent unnecessary splitting of traditional genera in Bromeliaceae, *Cipuropsis* Ule, *Navia* Schult.f., *Tillandsia* L. and *Werauhia* J.R.Grant are expanded, rather than split into several genera.

***Cipuropsis asplundii* (L.B.Sm.) Christenh. & Byng, comb. nov.** Basionym: *Tillandsia asplundii* L.B.Sm., *Phytologia* 6: 441. 1959.

***Cipuropsis bicolor* (L.B.Sm.) Christenh. & Byng, comb. nov.** Basionym: *Mezobromelia bicolor* L.B.Sm., *Proc. Amer. Acad. Arts* 70: 151. 1935.

***Cipuropsis capituligera* (Griseb.) Christenh. & Byng, comb. nov.** Basionym: *Tillandsia capituligera* Griseb., *Cat. Pl. Cub.*: 254. 1866.

***Cipuropsis delicatula* (L.B.Sm.) Christenh. & Byng, comb. nov.** Basionym: *Tillandsia delicatula* L.B.Sm., *Phytologia* 5: 36. 1954.

***Cipuropsis hospitalis* (L.B.Sm.) Christenh. & Byng, comb. nov.** Basionym: *Tillandsia hospitalis* L.B.Sm., *Caldasia* 5: 13. 1948.

***Cipuropsis magdalenae* (L.B.Sm.) Christenh. & Byng, comb. nov.** Basionym: *Vriesea magdalenae* L.B.Sm., *Phytologia* 8: 500. 1963.

***Cipuropsis pinnata* (Mez & Sodiro) Christenh. & Byng, comb. nov.** Basionym: *Tillandsia pinnata* Mez & Sodiro, *Bull. Herb. Boissier*, sér. 2, 4: 1130. 1904.

***Cipuropsis singularis* (Mez & Wercklé) Christenh. & Byng, comb. nov.** Basionym: *Tillandsia singularis* Mez & Wercklé, *Bull. Herb. Boissier*, sér. 2, 5: 103. 1905.

***Cipuropsis truncata* (L.B.Sm.) Christenh. & Byng, comb. nov.** Basionym: *Tillandsia truncata* L.B.Sm., *Contr. U.S. Natl. Herb.* 29: 530. 1954.

***Navia duidensis* (L.B.Sm.) Christenh. & Byng, comb. nov.** Basionym: *Brewcaria duidensis* L.B.Sm., Steyermark. & H.Rob., *Acta Bot. Venez.* 14: 10. 1984.

***Navia marahuacae* (L.B.Sm., Steyermark. & H.Rob.) Christenh. & Byng, comb. nov.** Basionym: *Brewcaria marahuacae* L.B.Sm., Steyermark. & H.Rob., *Ann. Missouri Bot. Gard.* 73: 714. 1987.

***Tillandsia condorensis* (Manzan. & Gouda) Christenh. & Byng, comb. nov.** Basionym: *Racinaea condorensis*

Manzan. & Gouda, *Phytotaxa* 3: 2. 2010.

***Tillandsia euryelytra* (J.R.Grant) Christenh. & Byng, comb. nov.** Basionym: *Racinaea euryelytra* J.R.Grant, *Phytologia* 76: 284. 1994.

***Tillandsia gentryana* (Manzan. & W.Till) Christenh. & Byng, comb. nov.** Basionym: *Racinaea gentryana* Manzan. & W.Till, *J. Bromeliad Soc.* 60: 159. 2011.

***Tillandsia geotropica* Christenh. & Byng, nom. nov.** Replaced synonym: *Racinaea penduliflora* Gouda & Manzan., *J. Bromeliad Soc.* 58: 156. 2008, not: *Tillandsia penduliflora* Griseb. Etymology: The inflorescences of this species are downward secund, pointing to the earth, hence the name.

***Tillandsia goudiae* (Manzan. & W.Till) Christenh. & Byng, comb. nov.** Basionym: *Racinaea goudiae* Manzan. & W.Till, *J. Bromeliad Soc.* 60: 210. 2011, as 'goudae'.

***Tillandsia grantii* (Manzan. & W.Till) Christenh. & Byng, comb. nov.** Basionym: *Racinaea grantii* Manzan. & W.Till, *J. Bromeliad Soc.* 60: 166. 2011.

***Tillandsia guacamayensis* (Manzan. & Gouda) Christenh. & Byng, comb. nov.** Basionym: *Racinaea guacamayensis* Manzan. & Gouda, *Phytotaxa* 3: 5. 2010.

***Tillandsia hoepfeli* Christenh. & Byng, nom. nov.** Replaced synonym: *Racinaea wuelfinghoffii* Höpfel & Scharf, *Bromelie* 2008: 136. 2008, not: *Tillandsia wuelfinghoffii* Ehlers. Etymology: This species was named for Frank Höpfel, who first described it.

***Tillandsia kalliantha* (J.R.Grant) Christenh. & Byng, comb. nov.** Basionym: *Racinaea kalliantha* J.R.Grant, *Phytologia* 76: 286. 1994.

***Tillandsia lymansmithiana* (J.R.Grant) Christenh. & Byng, comb. nov.** Basionym: *Racinaea lymansmithiana* J.R.Grant, *Phytologia* 76: 286. 1994.

***Tillandsia macrantha* (H.Luther) Christenh. & Byng, comb. nov.** Basionym: *Racinaea macrantha* H.Luther, *Selbyana* 28: 10. 2007.

***Tillandsia manzanaresii* Christenh. & Byng, nom. nov.** Replaced synonym: *Racinaea lutheri* Manzan. & W.Till, *J. Bromeliad Soc.* 62: 264. 2013, not: *Tillandsia lutheri* (Manzan. & W.Till) J.R.Grant. Etymology: This species is named for José Manuel Manzanares, who first described it.

***Tillandsia marioportillae* (Höpfel & Scharf) Christenh. & Byng, comb. nov.** Basionym: *Racinaea marioportillae* Höpfel & Scharf, *Bromelie* 2008: 97. 2008.

***Tillandsia pattersoniae* (Manzan. & W.Till) Christenh. & Byng, comb. nov.** Basionym: *Racinaea pattersoniae* Manzan. & W.Till, *J. Bromeliad Soc.* 57: 201. 2007.

***Tillandsia racinaea* Christenh. & Byng, nom. nov.** Replaced synonym: *Racinaea kessleri* H.Luther, *Selbyana* 19: 86. 1998, not: *Tillandsia kessleri*

- H.Luther. Etymology: Named for the genus *Racinaea*, now a synonym of *Tillandsia*.
- Tillandsia scharpii* Christenh. & Byng, nom. nov.** Replaced synonym: *Racinaea hasei* Höpfel & Scharf, *Bromeliae* 2011: 133. 2011, not: *Tillandsia hasei* Ehlers & L.Hrom. Etymology: This species is named for Uwe Scharf, who first described it.
- Tillandsia strobeliorum* (Manzan. & W.Till) Christenh. & Byng, comb. nov.** Basionym: *Racinaea strobeliorum* Manzan. & W.Till, *J. Bromeliad Soc.* 59: 109. 2009.
- Tillandsia terrestris* (Manzan. & Gouda) Christenh. & Byng, comb. nov.** Basionym: *Racinaea terrestris* Manzan. & Gouda, *Phytotaxa* 3: 9. 2010.
- Tillandsia zingleri* (Höpfel & Scharf) Christenh. & Byng, comb. nov.** Basionym: *Racinaea zingleri* Höpfel & Scharf, *Bromeliae* 2011: 128. 2011.
- Tillandsia zonai* Christenh. & Byng, nom. nov.** Replaced synonym: *Racinaea tillii* Manzan. & Gouda, *Phytotaxa* 3: 13. 2010, not: *Tillandsia tillii* Ehlers. Etymology: The species is named for Scott Zona, for his contribution to the understanding of littertrapping in plants, particularly in Bromeliaceae.
- Werauhia bibeatrica* (Morillo) Christenh. & Byng, comb. nov.** Basionym: *Vriesea bibeatrica* Morillo, *Ernstia* 39: 2. 1986, as 'bi-beatrica'.
- Werauhia glutinosa* (Lindl.) Christenh. & Byng, comb. nov.** Basionym: *Vriesea glutinosa* Lindl., *Gard. Chron.* 1856: 388. 1856.
- Werauhia monstrum* (Mez) Christenh. & Byng, comb. nov.** Basionym: *Tillandsia monstrum* Mez, *Repert. Spec. Nov. Regni Veg.* 16: 78. 1919.
- Werauhia soderstromii* (L.B.Sm.) Christenh. & Byng, comb. nov.** Basionym: *Vriesea soderstromii* L.B.Sm., *Bull. Bromeliad Soc.* 13: 53. 1963.
- Werauhia splendens* (Brongn.) Christenh. & Byng, comb. nov.** Basionym: *Tillandsia splendens* Brongn., *Hort. Universel* 6: 199. 1845.

**94. Eriocaulaceae.** Reference: Andrade et al. (2010).

**Note:** *Paepalanthus* Mart., nom. cons. is paraphyletic with *Actinocephalus* (Körn.) Sano, *Lachnocaulon* Kunth and *Tonina* Aubl. embedded. The genus was officially expanded by Mabberley (2017), but not all combinations were transferred, which are hereby provided.

***Paepalanthus aggregatus* (F.N.Costa) Christenh. & Byng, comb. nov.** Basionym: *Actinocephalus aggregatus* F.N.Costa, *Novon* 16: 212. 2006.

***Paepalanthus anceps* (Walter) Christenh. & Byng, comb. nov.** Basionym: *Eriocaulon anceps* Walter, *Fl. Carol.*: 83. 1788.

***Paepalanthus beyrichianus* (Sporl. ex Körn.) Christenh. & Byng, comb. nov.** Basionym: *Lachnocaulon*

- beyrichianum* Sporl. ex Körn., *Linnaea* 27: 567. 1856.
- Paepalanthus cubensis* (Ruhland) Christenh. & Byng, comb. nov.** Basionym: *Lachnocaulon cubense* Ruhland, *Repert. Spec. Nov. Regni Veg.* 22: 34. 1925.
- Paepalanthus deflexus* (F.N.Costa) Christenh. & Byng, comb. nov.** Basionym: *Actinocephalus deflexus* F.N.Costa, *Novon* 16: 214. 2006.
- Paepalanthus delicatus* (Sano) Christenh. & Byng, comb. nov.** Basionym: *Actinocephalus delicatus* Sano, *Phytotaxa* 27: 27. 2011.
- Paepalanthus digynus* (Körn.) Christenh. & Byng, comb. nov.** Basionym: *Lachnocaulon digynum* Körn., *Linnaea* 27: 570. 1856.
- Paepalanthus ekmanii* (Ruhland) Christenh. & Byng, comb. nov.** Basionym: *Lachnocaulon ekmanii* Ruhland, *Repert. Spec. Nov. Regni Veg.* 22: 34. 1925.
- Paepalanthus engleri* (Ruhland) Christenh. & Byng, comb. nov.** Basionym: *Lachnocaulon engleri* Ruhland in H.G.A.Engler (ed.), *Pflanzenr.* IV, 30: 241. 1903.
- Paepalanthus fluviatilis* (Aubl.) Christenh. & Byng, comb. nov.** Basionym: *Tonina fluviatilis* Aubl., *Hist. Pl. Guiane* 2: 857. 1775.
- Paepalanthus giulietiae* (Sano) Christenh. & Byng, comb. nov.** Basionym: *Actinocephalus giulietiae* Sano, *Phytotaxa* 27: 31. 2011.
- Paepalanthus glabrescens* (Silveira) Christenh. & Byng, comb. nov.** Basionym: *Paepalanthus ciliatus* var. *glabrescens* Silveira, *Floral. Mont.* 1: 213. 1928.
- Paepalanthus graminifolius* (F.N.Costa) Christenh. & Byng, comb. nov.** Basionym: *Actinocephalus graminifolius* F.N.Costa, *Novon* 16: 215. 2006.
- Paepalanthus koernikeanus* (Trovó & F.N.Costa) Christenh. & Byng, comb. nov.** Basionym: *Actinocephalus koernikeanus* Trovó & F.N.Costa, *Novon* 19: 256. 2009.
- Paepalanthus minus* (Chapm.) Christenh. & Byng, comb. nov.** Basionym: *Lachnocaulon michauxii* var. *minus* Chapm., *Fl. South. U.S.*, ed. 3: 531. 1897.
- Paepalanthus verae* (Sano & Trovó) Christenh. & Byng, comb. nov.** Basionym: *Actinocephalus verae* Sano & Trovó, *Brittonia* 62: 35. 2010.
- 106. Papaveraceae.** References: Carolan et al. (2008), Kadereit et al. (2011), Grey-Wilson (2012).
- Note:** The circumscription of *Papaver* L. has been contentious, and molecular studies have made the situation worse with *Meconopsis* Vig. being embedded and polyphyletic, with the type *M. cambrica* Vig. deeply embedded in *Papaver* and another clade of *Meconopsis* being embedded in a separate clade of *Papaver*. The genera *Stylomecon* G.Taylor and *Roemeria* Medik. are also embedded in *Papaver*. As a result the type of *Meconopsis* was changed, but in doing so the genus *Meconopsis* is

still not monophyletic, resulting in the acceptance of *Cathcartia* Hook.f.. As these genera have few separating characters (mainly presence or absence of style, which is not consistent within the genera) and all are known as poppies, it is better to expand the genus *Papaver* to include *Cathcartia*, *Meconopsis* and *Roemeria*.

***Papaver argemonanthum* (Prain) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis argemonantha* Prain, *Bull. Misc. Inform. Kew* 1915: 161. 1915.

***Papaver autumnale* (P.A.Egan) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis autumnalis* P.A.Egan, *Phytotaxa* 20: 48. 2011.

***Papaver baileyi* (Prain) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis baileyi* Prain, *Bull. Misc. Inform. Kew* 1915: 161. 1915.

***Papaver balangense* (Tosh.Yoshida, H.Sun & Boufford) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis balangensis* Tosh.Yoshida, H.Sun & Boufford, *Acta Bot. Yunnan.* 33: 409. 2011.

***Papaver bellum* (Prain) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis bella* Prain, *J. Asiatic Soc. Bengal, Pt. 2, Nat. Hist.* 63: 82. 1894.

***Papaver betonicifolium* (Franch.) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis betonicifolia* Franch., *Pl. Delavay.* 1: 42. 1889. (Figure 9A)

***Papaver bhutanicum* (Tosh.Yoshida & Grey-Wilson) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis bhutanica* Tosh.Yoshida & Grey-Wilson, *Plantsman n.s.* 11: 98. 2012.

***Papaver bijiangense* (H.Ohba, Tosh.Yoshida & H.Sun) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis bijiangensis* H.Ohba, Tosh.Yoshida & H.Sun, *J. Jap. Bot.* 84: 294. 2009.

***Papaver bulbiliferum* (Tosh.Yoshida, H.Sun & Grey-Wilson) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis bulbilifera* Tosh.Yoshida, H.Sun & Grey-Wilson, *Curtis's Bot. Mag.* 29: 200. 2012.

***Papaver calciphilum* (Kingdon-Ward) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis calciphila* Kingdon-Ward, *Gard. Chron.*, ser. 3, 82: 506. 1927.

***Papaver cathartia* Christenh. & Byng, nom. nov.** Replaced synonym: *Cathcartia villosa* Hook.f., *Bot. Mag.* 77: t. 4596. 1851, not: *Papaver villosum* K.Koch. Etymology: Named for the genus *Cathcartia*, now included in *Papaver*.

***Papaver chankheliense* (Grey-Wilson) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis chankheliensis* Grey-Wilson, *Curtis's Bot. Mag.* 23: 203. 2006.

***Papaver chelidonifolium* (Bureau & Franch.) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis chelidonifolia* Bureau & Franch., *J. Bot. (Morot)* 5: 19.

1891.

***Papaver comptum* (Prain) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis compta* Prain, *Bull. Misc. Inform. Kew* 1918: 212. 1918.

***Papaver concinnum* (Prain) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis concinna* Prain, *Bull. Misc. Inform. Kew* 1915: 163. 1915.

***Papaver ×cookei* (G.Taylor) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis ×cookei* G.Taylor, *J. Roy. Hort. Soc., London* 76: 231. 1951. (= *Papaver puniceum* × *Papaver quintuplinervium*).

***Papaver delavayi* (Franch.) Christenh. & Byng, comb. nov.** Basionym: *Cathcartia delavayi* Franch., *Bull. Soc. Bot. France* 33: 390. 1886.

***Papaver dhwojii* (G.Taylor ex Hay) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis dhwojii* G.Taylor ex Hay, *New Fl. & Silva* 4: 225. 1932.

***Papaver discigerum* (Prain) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis discigera* Prain, *Ann. Bot. (Oxford)* 20: 356. 1906.

***Papaver exile* (Tosh.Yoshida, H.Sun & Grey-Wilson) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis exilis* Tosh.Yoshida, H.Sun & Grey-Wilson, *Curtis's Bot. Mag.* 29: 204. 2012.

***Papaver florindae* (Kingdon-Ward) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis florindae* Kingdon-Ward, *Gard. Chron.*, ser. 3, 79: 232. 1926.

***Papaver forrestii* (Prain) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis forrestii* Prain, *Bull. Misc. Inform. Kew* 1907: 316. 1907.

***Papaver ganeshense* (Grey-Wilson) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis ganeshensis* Grey-Wilson, *Curtis's Bot. Mag.* 23: 188. 2006.

***Papaver georgei* (G.Taylor) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis georgei* G.Taylor, *Account Gen. Meconopsis*: 86. 1934.

***Papaver gracilipes* (G.Taylor) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis gracilipes* G.Taylor, *Account Gen. Meconopsis*: 38. 1934.

***Papaver grande* (Prain) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis grandis* Prain, *J. Asiatic Soc. Bengal, Pt. 2, Nat. Hist.* 64: 320. 1896.

***Papaver guilelmi-waldemarii* (Klotzsch & Garcke) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis guilelmi-waldemarii* Klotzsch & Garcke, *Bot. Ergebni. Reise Prinz Waldem.*: 129. 1862. Replaced synonym: *Meconopsis aculeata* Royle, *III. Bot. Himal. Mts.* 1: 67. 1834, not: *Papaver aculeatum* Thunb.

***Papaver ×harleyanum* (G.Taylor) Christenh. & Byng, comb. nov.** Basionym: *Meconopsis ×harleyana* G.Taylor, *New Fl. & Silva* 6: 48. 1933. (= *Papaver simplicifolium* × *Papaver integrifolium*)

***Papaver henrici* (Bureau & Franch.) Christenh. & Byng,**

- comb. nov.** Basionym: *Meconopsis henrici* Bureau & Franch., *J. Bot. (Morot)* 5(2): 19. 1891.
- Papaver heterandrum** (Tosh.Yoshida, H.Sun & Boufford) Christenh. & Byng, **comb. nov.** Basionym: *Meconopsis heterandra* Tosh.Yoshida, H.Sun & Boufford, *Acta Bot. Yunnan.* 32(6): 505. 2010.
- Papaver horridulum** (Hook.f. & Thomson) Christenh. & Byng, **comb. nov.** Basionym: *Meconopsis horridula* Hook.f. & Thomson, *Fl. Ind.* 1: 252. 1855.
- Papaver impeditum** (Prain) Christenh. & Byng, **comb. nov.** Basionym: *Meconopsis impedita* Prain, *Bull. Misc. Inform. Kew* 1915: 162. 1915.
- Papaver kafiristanicum** Christenh. & Byng, **nom. nov.** Replaced synonym: *Meconopsis neglecta* G.Taylor, *Account Gen. Meconopsis*: 102. 1934, not: *Papaver neglectum* Fedde. Etymology: Named for Kāfiristān, a historical region around the province of Nuristan in Afghanistan, where this species is found.
- Papaver ×kongboense** (G.Taylor) Christenh. & Byng, **comb. nov.** Basionym: *Meconopsis ×kongboensis* Grey-Wilson non Hort. ex R.L.Harley in Grey Wilson, *Gen. Meconopsis*: 203. 2014. (= *Papaver sulphureum* × *Papaver simplicifolium*)
- Papaver lamjungense** (Tosh.Yoshida, H.Sun & Grey-Wilson) Christenh. & Byng, **comb. nov.** Basionym: *Meconopsis lamjungensis* Tosh.Yoshida, H.Sun & Grey-Wilson, *Curtis's Bot. Mag.* 29: 207. 2012.
- Papaver lancifolium** (Franch.) Christenh. & Byng, **comb. nov.** Basionym: *Cathcartia lancifolia* Franch., *Bull. Soc. Bot. France* 33: 391. 1889.
- Papaver latifolium** (Prain) Christenh. & Byng, **comb. nov.** Basionym: *Meconopsis sinuata* Prain var. *latifolia* Prain, *Curtis's Bot. Mag.* 134: f. 8223. 1908.
- Papaver lhasaense** (Grey-Wilson) Christenh. & Byng, **comb. nov.** Basionym: *Meconopsis lhasaensis* Grey-Wilson, *Gen. Meconopsis*: 248. 2014.
- Papaver lijiangense** (Grey-Wilson) Christenh. & Byng, **comb. & stat. nov.** Basionym: *Meconopsis integrifolia* (Maxim.) Franch. subsp. *lijiangensis* Grey-Wilson, *Plantsman n.s.* 3: 33. 1996.
- Papaver ludlowii** (Grey-Wilson) Christenh. & Byng, **comb. nov.** Basionym: *Meconopsis ludlowii* Grey-Wilson, *Gen. Meconopsis*: 350. 2014.
- Papaver lyratum** (H.A.Cummins & Prain) Christenh. & Byng, **comb. nov.** Basionym: *Cathcartia lyrata* H.A.Cummins & Prain ex Prain, *J. Asiatic Soc. Bengal*, Pt. 2, *Nat. Hist.* 64: 325. 1896.
- Papaver manasluense** (P.A.Egan) Christenh. & Byng, **comb. nov.** Basionym: *Meconopsis manasluensis* P.A.Egan, *Phytotaxa* 20: 50. 2011.
- Papaver muscicola** (Tosh.Yoshida, H.Sun & Boufford) Christenh. & Byng, **comb. nov.** Basionym: *Meconopsis muscicola* Tosh.Yoshida, H.Sun & Boufford, *Acta Bot. Yunnan.* 34(2): 145. 2012.
- Papaver napaulense** (DC.) Christenh. & Byng, **comb. nov.** Basionym: *Meconopsis napaulensis* DC., *Prodri.* 1: 121. 1824.
- Papaver nyngchiense** (L.H.Zhou) Christenh. & Byng, **comb. nov.** Basionym: *Meconopsis nyngchiensis* L.H.Zhou, *Bull. Bot. Lab. N.E. Forest. Inst., Harbin* 1980: 98. 1980.
- Papaver oliverianum** (Franch. ex Prain) Christenh. & Byng, **comb. nov.** Basionym: *Meconopsis oliveriana* Franch. ex Prain, *J. Asiatic Soc. Bengal*, Pt. 2, *Nat. Hist.* 64: 312. 1896.
- Papaver ouvardianum** (Hand.-Mazz.) Christenh. & Byng, **comb. nov.** Basionym: *Meconopsis ouvardianum* Hand.-Mazz., *Anz. Akad. Wiss. Wien, Math.-Naturwiss. Kl.* 59: 247. 1922. Replaced synonym: *Meconopsis speciosa* Prain, *Trans. & Proc. Bot. Soc. Edinburgh* 23: 258. 1907, not: *Papaver speciosum* Tourlet
- Papaver pinnatifolium** (C.Y.Wu & X.Zhuang) Christenh. & Byng, **comb. nov.** Basionym: *Meconopsis pinnatifolia* C.Y.Wu & X.Zhuang, *Acta Phytotax. Sin.* 17: 114. 1979.
- Papaver polygonoides** (Prain) Christenh. & Byng, **comb. nov.** Basionym: *Cathcartia polygonoides* Prain, *J. Asiatic Soc. Bengal*, Pt. 2, *Nat. Hist.* 64: 326. 1896.
- Papaver prainianum** (Kingdon-Ward) Christenh. & Byng, **comb. nov.** Basionym: *Meconopsis prainiana* Kingdon-Ward, *Gard. Chron.*, ser. 3, 79: 308. 1926.
- Papaver prattii** (Prain) Christenh. & Byng, **comb. & stat. nov.** Basionym: *Meconopsis sinuata* Prain var. *prattii* Prain, *J. Asiatic Soc. Bengal*, Pt. 2, *Nat. Hist.* 64: 314. 1896.
- Papaver primulinum** (Prain) Christenh. & Byng, **comb. nov.** Basionym: *Meconopsis primulina* Prain, *J. Asiatic Soc. Bengal*, Pt. 2, *Nat. Hist.* 64: 319. 1896.
- Papaver przewalskii** Christenh. & Byng, **nom. nov.** Replaced synonym: *Cathcartia integrifolia* Maxim., *Bull. Acad. Imp. Sci. Saint-Pétersbourg*, sér. 3, 23: 310. 1877, not: *Papaver integrifolium* Vig. Etymology: The type specimen of this species was collected by Nikolai Przewalski, and the species is named in honour of him. (Figure 9B)
- Papaver pseudointegrifolium** (Prain) Christenh. & Byng, **comb. nov.** Basionym: *Meconopsis pseudointegrifolia* Prain, *Ann. Bot. (Oxford)* 20: 353. 1906.
- Papaver pseudovenustum** (G.Taylor) Christenh. & Byng, **comb. nov.** Basionym: *Meconopsis pseudovenusta* G.Taylor, *Account Gen. Meconopsis*: 85. 1934.
- Papaver psilonomma** (Farrer) Christenh. & Byng, **comb. nov.** Basionym: *Meconopsis psilonomma*

- Farrer, *Gard. Chron.*, ser. 3, 57: 110. 1915.
- Papaver pulchellum** (Tosh.Yoshida, H.Sun & Boufford) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis pulchella* Tosh.Yoshida, H.Sun & Boufford, *Acta Bot. Yunnan.* 32: 503. 2010.
- Papaver puniceum** (Maxim.) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis punicea* Maxim., *Fl. Tangut.* 1: 34. 1889. (Figure 9C)
- Papaver quintuplinervium** (Regel) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis quintuplinervia* Regel, *Gartenflora* 25: 291. 1876.
- Papaver racemosum** (Maxim.) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis racemosa* Maxim., *Bull. Acad. Imp. Sci. St.-Pétersbourg* 28: 310. 1877.
- Papaver regium** (G.Taylor) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis regia* G.Taylor, *J. Bot.* 67: 259. 1929
- Papaver robustum** (Hook.f. & Thomson) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis robusta* Hook.f. & Thomson, *Fl. Ind.* 1: 253. 1855.
- Papaver roemeria** Christenh. & Byng, *nom. nov.* Replaced synonym: *Chelidonium hybridum* L., *Sp. Pl.* 506. 1753, not: *Papaver hybridum* L. Etymology: This species is named for Roemeria, a genus now a synonym of *Papaver*.
- Papaver rude** (Prain) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis horridula* Hook.f. & Thomson var. *rudis* Prain, *J. Asiat. Soc. Bengal. Pt. 2. Nat. Hist.* 64: 314. 1896.
- Papaver sherriffii** (G.Taylor) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis sherriffii* G.Taylor, *New Fl. & Silva* 9: 155. 1937.
- Papaver simikotense** (Grey-Wilson) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis simikotensis* Grey-Wilson, *Bull. Alpine Gard. Soc. Gr. Brit.* 74: 220. 2006.
- Papaver sinomaculatum** (Grey-Wilson) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis sinomaculata* Grey-Wilson, *Plantsman n.s.*, 1: 227. 2002.
- Papaver sinuatum** (Prain) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis sinuata* Prain, *J. Asiat. Soc. Bengal. Pt. 2, Nat. Hist.* 64: 314. 1896.
- Papaver smithianum** (Hand.-Mazz.) Christenh. & Byng, *comb. nov.* Basionym: *Cathcartia smithiana* Hand.-Mazz., *Anz. Akad. Wiss. Wien, Math.-Naturwiss. Kl.* 60: 182. 1924.
- Papaver staintonii** (Grey-Wilson) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis staintonii* Grey-Wilson, *Curtis's Bot. Mag.* 23: 190. 2006.
- Papaver sulphureum** (Grey-Wilson) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis sulphurea* Grey-
- Wilson, *Gen. Meconopsis*: 188. 2014.
- Papaver superbum** (King ex Prain) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis superba* King ex Prain, *J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist.* 64: 317. 1896.
- Papaver taylorii** (L.H.J.Williams) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis taylorii* L.H.J.Williams, *Trans. Bot. Soc. Edinburgh* 41: 348. 1972.
- Papaver tibeticum** (Grey-Wilson) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis tibetica* Grey-Wilson, *Bull. Alpine Gard. Soc. Gr. Brit.* 74: 222. 2006.
- Papaver torquatum** (Prain) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis torquata* Prain, *Ann. Bot. (Oxford)* 20: 355. 1906.
- Papaver venustum** (Prain) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis venusta* Prain, *Bull. Misc. Inform. Kew* 1915: 164. 1915.
- Papaver violaceum** (Kingdon-Ward) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis violacea* Kingdon-Ward, *Garden* 91: 450. 1927.
- Papaver wallichii** (Hook.) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis wallichii* Hook., *Curtis's Bot. Mag.* 78: t. 4668. 1852.
- Papaver wilsonii** (Grey-Wilson) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis wilsonii* Grey-Wilson, *Curtis's Bot. Mag.* 23: 195. 2006.
- Papaver wumungense** (K.M.Feng ex C.Y.Wu & H.Zhuang) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis wumungensis* K.M.Feng ex C.Y.Wu & H.Zhuang, *Fl. Yunnan.* 2: 33. 1979.
- Papaver xiangchengense** (R.Li & Z.L.Dao) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis xiangchengensis* R.Li & Z.L.Dao, *Novon* 22: 180. 2012.
- Papaver yaoshanense** (Tosh.Yoshida, H.Sun & Boufford) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis yaoshanensis* Tosh.Yoshida, H.Sun & Boufford, *Acta Bot Yunnan.* 34: 148. 2012.
- Papaver zangnanense** (L.H.Zhou) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis zangnanensis* L.H.Zhou, *Acta Phytotax. Sin.* 17: 112. 1979.
- Papaver zhongdianense** (Grey-Wilson) Christenh. & Byng, *comb. nov.* Basionym: *Meconopsis zhongdianensis* Grey-Wilson, *Gen. Meconopsis* : 258. 2014.

**110. Berberidaceae.** References: Liu et al. (2002), Wang et al. (2007).

**Note:** *Diphylleia* Michx. is embedded in *Podophyllum* L., which resulted in the acceptance of *Dysosma* Woodson and *Sinopodophyllum* T.S.Ying. As this destabilises the traditional concept of *Podophyllum* and defies the fact that *Diphylleia* is morphologically

similar, it is better to merge the three species of *Diphylleia* with *Podophyllum*, keeping the genus in the traditional sense.

***Podophyllum cymosum* (Michx.) Christenh. & Byng, comb. nov.** Basionym: *Diphylleia cymosa* Michx., Fl. Bor.-Amer. 1: 203. 1803.

***Podophyllum grayi* (F.Schmidt) Christenh. & Byng, comb. nov.** Basionym: *Diphylleia grayi* F.Schmidt, Reis. Amur-Land., Bot.: 109. 1868.

***Podophyllum sinense* (H.L.Li) Christenh. & Byng, comb. nov.** Basionym: *Diphylleia sinensis* H.L.Li, J. Arnold Arbor. 28: 443. 1947.

***Podophyllum tsayuense* (T.S.Ying) Christenh. & Byng, comb. nov.** Basionym: *Dysosma tsayuensis* T.S.Ying, Acta Phytotax. Sin. 17: 20. 1979.

**111. Ranunculaceae.** References: Hoot et al. (1994), Hörandl et al. (2005), Jabbour & Renner (2011, 2012), Wang et al. (2013), Lehtonen et al. (2016), Jiang et al. (2017), Xiang et al. (2017).

**Note:** *Anemone* L. in the sense of Hoot et al. (1994) forms a paraphyletic assembly leading up to a monophyletic *Clematis* L. (Lehtonen et al., 2016). The original idea of treating it as a single large genus resulted from using *Clematis* as the outgroup by Hoot et al. (1994), when in fact it is part of the ingroup. As merging the two genera would destabilise the nomenclature too much and is unlikely to be followed by the general public, the genus *Anemone* is to be segregated again into *Anemone*, *Anemonidium* (Spach) Holub, *Eriocapitella* Nakai, *Knowltonia* Salisb. (here expanded to include most Southern Hemisphere *Anemone*), *Hepatica* Mill. and *Pulsatilla* Mill.; the latter two treated in their historical concepts. Jiang et al. (2017) produced another phylogenetic study on Anemoneae, but failed to include *Anemone* s.s. (e.g. *Anemone nemorosa* L. and related species), hence they found that there are only two clades in *Anemone*, albeit with weak support. On the basis of the study by Jiang et al. (2017) no nomenclatural changes should be made, but we follow the more complete study of Lehtonen et al. (2016) instead. Jabbour & Renner (2011) first found *Consolida* Gray and *Aconitella* Spach embedded inside *Delphinium* L. and subsequent studies confirmed the result (Jabbour & Renner, 2012; Wang et al., 2013; Xiang et al., 2017). Similarly, *Ranunculus* L. is expanded to include *Ficaria* Haller and *Myosurus* L., to provide a stable taxonomy for that genus (Hörandl et al., 2005).

***Anemonidium coelestinum* (Franch.) Christenh. & Byng, comb. nov.** Basionym: *Anemone coelestina* Franch., Bull. Soc. Bot. France 32: 4. 1885.

***Anemonidium demissum* (Hook.f. & Thomson) Christenh. & Byng, comb. nov.** Basionym: *Anemone*

*demissa* Hook.f. & Thomson, Fl. Ind. 1: 23. 1855.

***Anemonidium flaccidum* (F.Schmidt) Christenh. & Byng, comb. nov.** Basionym: *Anemone flaccida* F.Schmidt, Reis. Amur-Land., Bot.: 103. 1868.

***Anemonidium keiskeanum* (T.Ito ex Maxim.) Christenh. & Byng, comb. nov.** Basionym: *Anemone keiskeana* T. Itô ex Maxim., Bull. Acad. Imp. Sci. St.-Petersbourg, sér. 3, 32: 478. 1888.

***Anemonidium narcissiflorum* (L.) Christenh. & Byng, comb. nov.** Basionym: *Anemone narcissiflora* L., Sp. Pl. 1: 542. 1753.

***Anemonidium obtusilobum* (D.Don) Christenh. & Byng, comb. nov.** Basionym: *Anemone obtusiloba* D.Don, Prodr. Fl. Nepal.: 194. 1825. (Figure 9D)

***Anemonidium rupestre* (Wall. ex Hook.f. & Thomson) Christenh. & Byng, comb. nov.** Basionym: *Anemone rupestris* Wall. ex Hook.f. & Thomson, Fl. Ind. 1: 21. 1855.

***Anemonidium tenuicaule* (Cheeseman) Christenh. & Byng, comb. nov.** Basionym: *Ranunculus tenuicaulis* Cheeseman, Trans. & Proc. New Zealand Inst. 17: 235. 1885.

***Anemonidium tetrasepalum* (Royle) Christenh. & Byng, comb. nov.** Basionym: *Anemone tetrasepala* Royle, Ill. Bot. Himal. Mts. 1: 53. 1834.

***Anemonidium trullifolium* (Hook.f. & Thomson) Christenh. & Byng, comb. nov.** *Anemone trullifolia* Hook.f. & Thomson, Fl. Ind. 1: 22. 1855.

***Delphinium arenarium* (Carlström) Jabbour, comb. nov.** Basionym: *Consolida arenaria* Carlström, Willdenowia 14: 16. 1984.

***Delphinium colesyriacum* (Mouterde) Jabbour, comb. nov.** Basionym: *Consolida colesyriaca* Mouterde, Nouv. Fl. Liban & Syrie 2: 23. 1970.

***Delphinium kandaharicum* (Iranshahr) Jabbour, comb. nov.** Basionym: *Consolida kandaharica* Iranshahr, Pl. Syst. Evol. 155: 56. 1987.

***Delphinium lineolatum* (Hub.-Mor. & C.Simon) Jabbour, comb. nov.** Basionym: *Consolida lineolata* Hub.-Mor & C.Simon, Bauhinia 6: 285. 1978.

***Delphinium lorestanicum* (Iranshahr) Jabbour, comb. nov.** Basionym: *Consolida lorestanica* Iranshahr, Pl. Syst. Evol. 155: 55. 1987.

***Delphinium samium* (P.H.Davis) Jabbour, comb. nov.** Basionym: *Consolida samia* P.H.Davis, Notes Roy. Bot. Gard. Edinburgh 26: 172. 1965.

***Delphinium staminosum* (P.H.Davis & Sorger) Jabbour, comb. nov.** Basionym: *Consolida staminosa* P.H.Davis & Sorger, Notes Roy. Bot. Gard. Edinburgh 40: 89. 1982.

***Delphinium stapfianum* (P.H.Davis & Sorger) Jabbour, comb. nov.** Basionym: *Consolida stapfiana* P.H.Davis & Sorger, Notes Roy. Bot. Gard. Edinburgh 40: 89.



Figure 9: **Angiosperms (Eudicots).** A, *Papaver betonicifolium* (Franch.) Christenh. & Byng; B, *Papaver przewalskii* Christenh. & Byng; C, *Papaver puniceum* (Maxim.) Christenh. & Byng; D, *Anemone obtusilobum* (D.Don) Christenh. & Byng; E, *Eriocapitella hupehensis* (Lemoine) Christenh. & Byng; and F, *Eriocapitella rivularis* (Buch.Ham. ex DC.) Christenh. & Byng. All images © Maarten Christenhusz.

1982.

**Eriocapitella hupehensis** (Lemoine) Christenh. & Byng, *comb. nov.* Basionym: *Anemone japonica* (Thunb.) Siebold & Zucc. var. *hupehensis* Lemoine, Catalogue 170: 42. 1908. (Figure 9E)

**Eriocapitella ×hybrida** (L.H.Bailey) Christenh. & Byng, *comb. nov.* Basionym: *Anemone japonica* (Thunb.) Siebold & Zucc. var. *hybrida* L.H.Bailey, Stand. Cycl. Hort. 1: 286. 1914. (= *Eriocapitella vitifolia* × *Eriocapitella japonica*)

**Eriocapitella rivularis** (Buch.-Ham. ex DC.) Christenh. & Byng, *comb. nov.* Basionym: *Anemone rivularis* Buch.-Ham. ex DC., Syst. Nat. 1: 211. 1818. (Figure 9F)

**Eriocapitella rupicola** (Cambess.) Christenh. & Byng, *comb. nov.* Basionym: *Anemone rupicola* Cambess., Voy. Inde [Jacquemont] 4(Bot.): 5. 1844.

**Eriocapitella tomentosa** (Maxim.) Christenh. & Byng, *comb. nov.* Basionym: *Anemone japonica* (Thunb.) Siebold & Zucc. var. *tomentosa* Maxim., Fl. Tangut.: 7. 1889.

**Knowltonia assisbrasiliiana** (Kuhlm. & Porto) Christenh. & Byng, *comb. nov.* Basionym: *Anemone assisbrasiliiana* Kuhlm. & Porto, Arch. Jard. Bot. Rio de Janeiro 6: 114. 1933.

**Knowltonia balliana** (Britton) Christenh. & Byng, *comb. nov.* Basionym: *Barneoudia balliana* Britton, Ann. New York Acad. Sci. 6: 236. 1891.

**Knowltonia caffra** (Harv.) Christenh. & Byng, *comb. nov.* Basionym: *Anemone caffra* Harv., Gen. S. Afr. Pl. 9. 1838.

**Knowltonia chilensis** (Gay) Christenh. & Byng, *comb. nov.* Basionym: *Barneoudia chilensis* Gay, Fl. Chil. 1: 29. 1845.

**Knowltonia crassifolia** (Hook.) Christenh. & Byng, *comb. nov.* Basionym: *Anemone crassifolia* Hook., Icon. Pl. 3: t. 257. 1840.

**Knowltonia fanninii** (Harv. & Hook.f.) Christenh. & Byng, *comb. nov.* Basionym: *Anemone fanninii* Harv. & Hook.f., Bot. Mag. 113: t. 6958. 1887.

**Knowltonia helleborifolia** (DC.) Christenh. & Byng, *comb. nov.* Basionym: *Anemone helleborifolia* DC., Syst. Nat. 1: 211. 1817.

**Knowltonia hepaticifolia** (Hook.f.) Christenh. & Byng, *comb. nov.* Basionym: *Anemone hepaticifolia* Hook.f., Icon. Pl. 1: t. 1. 1837.

**Knowltonia hootae** Christenh. & Byng, *nom. nov.* Replaced synonym: *Anemone rigida* Gay, Fl. Chil. 1: 25. 1845, not: *Knowltonia rigida* Salisb. Etymology: Named for Sara Hoot, for her contributions to the understanding of the evolution of Ranunculales.

**Knowltonia integrifolia** (DC.) Christenh. & Byng, *comb. nov.* Basionym: *Hepatica integrifolia* DC., Syst. Nat.

1: 217. 1817.

**Knowltonia major** (Phil.) Christenh. & Byng, *comb. nov.* Basionym: *Barneoudia major* Phil., Linnaea 28: 609. 1857.

**Knowltonia mexicana** (Kunth) Christenh. & Byng, *comb. nov.* Basionym: *Anemone mexicana* Kunth, Nov. Gen. Sp. (quarta ed.) 5: 41. 1817.

**Knowltonia moorei** (Espinosa) Christenh. & Byng, *comb. nov.* Basionym: *Anemone moorei* Espinosa, Bol. Mus. Nac., Santiago de Chile 18: 26. 1940.

**Knowltonia peruviana** (Britton) Christenh. & Byng, *comb. nov.* Basionym: *Anemone peruviana* Britton, Ann. New York Acad. Sci. 4: 225. 1891.

**Knowltonia pulsatilloides** Christenh. & Byng, *nom. nov.* Replaced synonym: *Atragene capensis* L., Sp. Pl. 1: 543. 1753, not: *Knowltonia capensis* Huth. Etymology: This species somewhat resembles a *Pulsatilla* of the Cape, hence its name.

**Knowltonia sellowii** (Pritz.) Christenh. & Byng, *comb. nov.* Basionym: *Anemone sellowii* Pritz., Linnaea 15: 667. 1842.

**Ranunculus adamastus** Christenh. & Byng, *nom. nov.* Replaced synonym: *Myosurus capensis* Tamura, Acta Phytotax. Geobot. 44: 27. 1993, not: *Ranunculus capensis* Thunb. Etymology: From Greek αδάμαστος, indomitable or untamed.

**Ranunculus alopecuroides** (Greene) Christenh. & Byng, *comb. nov.* Basionym: *Myosurus alopecuroides* Greene, Bull. Calif. Acad. Sci. 1: 278. 1885.

**Ranunculus aotearoanus** Christenh. & Byng, *nom. nov.* Replaced synonym: *Myosurus novae-zelandiae* W.R.B.Oliv., Trans. & Proc. New Zealand Inst. 56: 4. 1926, not: *Ranunculus novae-zelandiae* Petrie. Etymology: Aotearoa is the Maori name for New Zealand, where this species is found.

**Ranunculus aristatus** (Benth.) Christenh. & Byng, *comb. nov.* Basionym: *Myosurus aristatus* Benth., London J. Bot. 6: 459. 1847. Replaced synonym: *Myosurus apetalus* Gay, Fl. Chil. 1: 31. 1845, not: *Ranunculus apetalus* Farr

**Ranunculus breviscapus** (Huth) Christenh. & Byng, *comb. nov.* Basionym: *Myosurus breviscapus* Huth, Bot. Jahrb. Syst. 16: 285. 1893.

**Ranunculus cauda-muris** (Neck.) Christenh. & Byng, *comb. nov.* Basionym: *Myosurus cauda-muris* Neck., Delic. Gallo-Belg. 1: 161. 1786.

**Ranunculus cupulatus** (S.Wats.) Christenh. & Byng, *comb. nov.* Basionym: *Myosurus cupulatus* S.Watson, Proc. Amer. Acad. Arts & Sci. 17: 362. 1882.

**Ranunculus egglestonii** Christenh. & Byng, *comb. nov.* Basionym: *Myosurus egglestonii* Wooton & Standley, Contr. U.S. Natl. Herb. 16: 123. 1913. Replaced synonym: *Myosurus nitidus* Eastw., Bull. Torrey Bot.

*Club* 32: 194. 1905, not: *Ranunculus nitidus* Walter

***Ranunculus heldreichii* (H.Lév.) Christenh. & Byng,**  
***comb. nov.*** Basionym: *Myosurus heldreichii* H.Lév.,  
*Bull. Acad. Int. Géogr. Bot.* 11: 296. 1902.

***Ranunculus musculus* Christenh. & Byng, nom. nov.**

Replaced synonym: *Myosurus tenellus* Greene, *Pittonia* 3: 258. 1898, not: *Ranunculus tenellus* Viv., nor: *Ranunculus tenellus* Nutt. Etymology: From Latin *mus*, a mouse, in diminutive, as the plant resembles little mouse tails.

***Ranunculus ondine* Christenh. & Byng, nom. nov.**

Replaced synonym: *Myosurus major* Greene, *Pittonia* 3: 257. 1898, not: *Ranunculus major* Dumort. Etymology: Undine (or Ondine) is a water nymph from the alchemical writings of Paracelsus. As this species is aquatic, the name seemed appropriate.

***Ranunculus oz* Christenh. & Byng, nom. nov.** Replaced

synonym: *Myosurus australis* F.Muell. *Trans. Philos. Soc. Victoria* 1: 6. 1854, not: *Ranunculus australis* Eastw. Etymology: As this species is Australian, 'oz' is a colloquial abbreviation commonly used for the country where this species grows.

***Ranunculus sessilis* (S.Wats.) Christenh. & Byng, comb. nov.**

Basionym: *Myosurus sessilis* S.Wats., *Proc. Amer. Acad. Arts & Sci.* 17: 362. 1882.

***Ranunculus tehuelchicus* Christenh. & Byng, nom. nov.**

Replaced synonym: *Myosurus patagonicus* Speg., *Rev. Fac. Agron. Univ. Nac. La Plata* 3: 488. 1897, not: *Ranunculus patagonicus* Poepp. Etymology: Named for the Tehuelche people that inhabit Patagonia, where this species is found.

## 115. Proteaceae. Reference: Mast et al. (2015).

Note: *Hakea* s.s. and *Finschia* make *Grevillea* paraphyletic and the two genera are hereby merged.

*Hakea* has nomenclatural priority. A full discussion is provided in the introduction.

***Hakea abbreviata* (McGill.) Christenh. & Byng, comb. & stat. nov.**

Basionym: *Grevillea nana* C.Gardner subsp. *abbreviata* McGill., *New Names Grevillea*: 10. 1986.

***Hakea acanthifolia* (A.Cunn.) Christenh. & Byng, comb. nov.**

Basionym: *Grevillea acanthifolia* A.Cunn., *Geogr. Mem. New South Wales (Field)*: 328. 1825.

***Hakea acerata* (McGill.) Christenh. & Byng, comb. nov.**

Basionym: *Grevillea acerata* McGill., *New Names Grevillea*: 1. 1986.

***Hakea acrobotrya* (Meisn.) Christenh. & Byng, comb. nov.**

Basionym: *Grevillea acrobotrya* Meisn., *Hooker's J. Bot. Kew Gard. Misc.* 7: 74. 1855.

***Hakea acropogon* (Makinson) Christenh. & Byng, comb. nov.**

Basionym: *Grevillea acropogon* Makinson, *Fl. Australia* 17A: 496. 2000.

***Hakea acuaria* (F.Muell. ex Benth.) Christenh. & Byng,**

***comb. nov.*** Basionym: *Grevillea acuaria* F.Muell. ex Benth., *Fl. Austral.* 5: 421. 1870.

***Hakea adenotricha* (McGill.) Christenh. & Byng, comb. nov.**

Basionym: *Grevillea adenotricha* McGill., *New Names Grevillea*: 1. 1986.

***Hakea adpressa* (Olde & Marriott) Christenh. & Byng,**

***comb. nov.*** Basionym: *Grevillea adpressa* Olde & Marriott, *Nuytsia* 9: 250. 1993.

***Hakea agrifolia* (A.Cunn. ex R.Br.) Christenh. & Byng,**

***comb. nov.*** Basionym: *Grevillea agrifolia* A.Cunn. ex R.Br., *Prod. Fl. Nov. Holl.*, *Suppl.* 1: 24. 1830.

***Hakea albiflora* (C.T.White) Christenh. & Byng, comb. nov.**

Basionym: *Grevillea albiflora* C.T.White, *Proc. Roy. Soc. Queensland* 55: 79. 1944.

***Hakea alpina* (Lindl.) Christenh. & Byng, comb. nov.**

Basionym: *Grevillea alpina* Lindl., *Three Exped. Australia [Mitchell]* 2: 178, in *adnot.* 1838.

***Hakea alpivaga* (Gand.) Christenh. & Byng, comb. nov.**

Basionym: *Grevillea alpivaga* Gand., *Bull. Soc. Bot. France* 66: 231, in *clavi.* 1919.

***Hakea althoferorum* (Olde & Marriott) Christenh. &**

***Byng, comb. nov.*** Basionym: *Grevillea althoferorum* Olde & Marriott, *Nuytsia* 9: 295. 1993.

***Hakea amplexans* (F.Muell. ex Benth.) Christenh. &**

***Byng, comb. nov.*** Basionym: *Grevillea amplexans* F.Muell. ex Benth., *Fl. Austral.* 5: 488. 1870.

***Hakea anethifolia* (R.Br.) Christenh. & Byng, comb. nov.**

Basionym: *Grevillea anethifolia* R.Br., *Prod. Fl. Nov. Holl.*, *Suppl.* 1: 21. 1830.

***Hakea aneura* (McGill.) Christenh. & Byng, comb. nov.**

Basionym: *Grevillea aneura* McGill., *New Names Grevillea*: 1. 1986.

***Hakea angulata* (R.Br.) Christenh. & Byng, comb. nov.**

Basionym: *Grevillea angulata* R.Br., *Prod. Fl. Nov. Holl.*, *Suppl.* 1: 24. 1830.

***Hakea angustiloba* (F.Muell.) Christenh. & Byng,**

***comb. & stat. nov.*** Basionym: *Grevillea ilicifolia* var. *angustiloba* F.Muell., *Fragm. Phytogr. Austral.* 6: 212. 1868.

***Hakea annulifera* (F.Muell.) Christenh. & Byng, comb. nov.**

Basionym: *Grevillea annulifera* F.Muell., *Fragm. Phytogr. Austral.* 4: 85. 1864. (Figure 10A)

***Hakea anthira* Christenh. & M.W.Chase, nom. nov.**

Replaced synonym: *Grevillea uncinulata* subsp. *florida* McGill., *New Names Grevillea*: 15. 1986, not: *Hakea florida* R.Br. Etymology: From ανθηρος Greek for florid.

***Hakea apiciloba* (F.Muell.) Christenh. & Byng, comb. nov.**

Basionym: *Grevillea apiciloba* F.Muell., *Fragm. Phytogr. Austral.* 10: 45. 1876.

***Hakea apiciloba* (F.Muell.) Christenh. & Byng, comb. nov.**

Basionym: *Grevillea apiciloba* F.Muell., *Fragm. Phytogr. Austral.* 10: 45. 1876.

***Hakea aquifolium* (Lindl.) Christenh. & Byng, comb.**

**nov.** Basionym: *Grevillea aquifolium* Lindl., *Three Exped. Australia [Mitchell]* 2: 178, in adnot. 1838. (Figure 10B)

**Hakea arachnoidea** Christenh. & M.W.Chase, *nom. nov.*

Replaced synonym: *Embothrium sericeum* Sm., *Spec. Bot. N. Holl.* 25. 1793, not: *Hakea sericea* Schrad. & J.C.Wendl. Etymology: This species has pink spidery flowers, hence the epithet. (Figure 10C)

**Hakea arenaria** (R.Br.) Christenh. & Byng, *comb. nov.*

Basionym: *Grevillea arenaria* R.Br., *Trans. Linn. Soc. London, Bot.* 10: 172. 1810.

**Hakea argyrophylla** (Meisn.) Christenh. & Byng, *comb. nov.*

Basionym: *Grevillea argyrophylla* Meisn., *Hooker's J. Bot. Kew Gard. Misc.* 7: 75. 1855.

**Hakea aridocapensis** Christenh. & M.W.Chase, *nom. nov.*

Replaced synonym: *Grevillea baxteri* R.Br., *Prod. Fl. Nov. Holl., Suppl.* 1: 22. 1830, not: *Hakea baxteri* R.Br. Etymology: This species is endemic to Cape Aride, hence the name.

**Hakea armigera** (Meisn.) Christenh. & Byng, *comb. nov.*

Basionym: *Grevillea armigera* Meisn., *Prod. [A. P. de Candolle]* 14: 373. 1856.

**Hakea asparagooides** (Meisn.) Christenh. & Byng, *comb. nov.*

Basionym: *Grevillea asparagooides* Meisn., *Prod. [A. P. de Candolle]* 14: 373. 1856. (Figure 10D)

**Hakea aspera** (R.Br.) Christenh. & Byng, *comb. nov.*

Basionym: *Grevillea aspera* R.Br., *Trans. Linn. Soc. London, Bot.* 10: 172. 1810.

**Hakea asperula** (McGill.) Christenh. & Byng, *comb. & stat. nov.*

Basionym: *Grevillea baueri* subsp. *asperula* McGill., *New Names Grevillea*: 2. 1986.

**Hakea asplenifolia** (Knight) Christenh. & Byng, *comb. nov.*

Basionym: *Grevillea asplenifolia* Knight, *Cult. Prot.* 120. 1809.

**Hakea asteriscosa** (Diels ex Diels & E.Pritz.) Christenh. & Byng, *comb. nov.*

Basionym: *Grevillea asteriscosa* Diels ex Diels & E.Pritz., *Bot. Jahrb. Syst.* 35: 151. 1904. (Figure 10E)

**Hakea aurea** (Olde & Marriott) Christenh. & Byng, *comb. nov.*

Basionym: *Grevillea aurea* Olde & Marriott, *Telopea* 5: 407. 1993.

**Hakea australis** (R.Br.) Christenh. & Byng, *comb. nov.*

Basionym: *Grevillea australis* R.Br., *Trans. Linn. Soc. London, Bot.* 10: 171. 1810.

**Hakea banksii** (R.Br.) Christenh. & Byng, *comb. nov.*

Basionym: *Grevillea banksii* R.Br., *Trans. Linn. Soc. London, Bot.* 10: 176. 1810.

**Hakea banyabba** (Olde & Marriott) Christenh. & Byng, *comb. nov.*

Basionym: *Grevillea banyabba* Olde & Marriott, *Telopea* 5: 719. 1994.

**Hakea barklyana** (F.Muell. ex Benth.) Christenh. & Byng, *comb. nov.*

Basionym: *Grevillea barklyana*

F.Muell. ex Benth., *Fl. Austral.* 5: 436. 1870.

**Hakea barrettiorum** Christenh. & M.W.Chase, *nom. nov.*

Basionym: *Grevillea lemanniana* Meisn., *Prod. [A.P. de Candolle]* 14: 366. 1856, not: *Hakea lemanniana* Meisn., orth. var. Etymology: This species is named for the brothers Matthew and Russell Barrett, for their contribution to the knowledge of the Australian flora.

**Hakea bathurstensis** Christenh. & Byng, *nom. nov.*

Replaced synonym: *Grevillea divaricata* R.Br., *Prod. Fl. Nov. Holl., Suppl.* 1: 20. 1830, not: *Hakea divaricata* L.A.S.Johnson. Etymology: This species has only been found only once near Bathurst, New South Wales.

**Hakea batrachiooides** (F.Muell. ex McGill.) Christenh. &

Byng, *comb. nov.*

Basionym: *Grevillea batrachiooides* F.Muell. ex McGill., *New Names Grevillea*: 2. 1986.

**Hakea baueri** (R.Br.) Christenh. & Byng, *comb. nov.*

Basionym: *Grevillea baueri* R.Br., *Trans. Linn. Soc. London, Bot.* 10: 173. 1810.

**Hakea beadleana** (McGill.) Christenh. & Byng, *comb. nov.*

Basionym: *Grevillea beadleana* McGill., *New Names Grevillea*: 2. 1986.

**Hakea beardiana** (McGill.) Christenh. & Byng, *comb. nov.*

Basionym: *Grevillea beardiana* McGill., *New Names Grevillea*: 2. 1986.

**Hakea bedggoodiana** (J.H.Willis ex McGill.)

Christenh. & Byng, *comb. nov.*

Basionym: *Grevillea bedggoodiana* J.H.Willis ex McGill., *New Names Grevillea*: 3. 1986.

**Hakea behrii** (Schltdl.) Christenh. & Byng, *comb. nov.*

Basionym: *Grevillea behrii* Schltdl., *Linnaea* 20: 585. 1847. Replaced synonym: *Anadenia ilicifolia* R.Br., *Trans. Linn. Soc. London, Bot.* 10: 167. 1810, not: *Hakea ilicifolia* R.Br.

**Hakea bemboka** (Stajsic & Molyneux) Christenh. &

Byng, *comb. nov.*

Basionym: *Grevillea bemboka* Stajsic & Molyneux, *Muelleria* 22: 28. 2005.

**Hakea benthamiana** (McGill.) Christenh. & Byng, *comb. nov.*

Basionym: *Grevillea benthamiana* McGill., *New Names Grevillea*: 3. 1986.

**Hakea berryana** (Ewart & Jean White) Christenh. &

Byng, *comb. nov.*

Basionym: *Grevillea berryana* Ewart & Jean White, *Proc. Roy. Soc. Victoria n.s.* 22: 14. 1909.

**Hakea biformis** (Meisn.) Christenh. & Byng, *comb. nov.*

Basionym: *Grevillea biformis* Meisn., *Pl. Preiss. (Lehmann)* 2: 258. 1848.

**Hakea biternata** (Meisn.) Christenh. & Byng, *comb. nov.*

Basionym: *Grevillea biternata* Meisn., *Pl. Preiss. (Lehmann)* 1: 549. 1845.

**Hakea brachystachya** (Meisn.) Christenh. & Byng, *comb. nov.*

Basionym: *Grevillea brachystachya*

- Meisn., *Pl. Preiss. (Lehmann)* 2: 254. 1848.
- Hakea brachystylis** (Meisn.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea brachystylis* Meisn., *Pl. Preiss. (Lehmann)* 1: 538. 1845.
- Hakea bracteosa** (Meisn.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea bracteosa* Meisn., *Pl. Preiss. (Lehmann)* 2: 254. 1848.
- Hakea brevifolia** (F.Muell. ex Benth.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea brevifolia* F.Muell. ex Benth., *Fl. Austral.* 5: 467. 1870.
- Hakea brevis** (Olde & Marriott) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea brevis* Olde & Marriott, *Telopea* 5: 410. 1993.
- Hakea brindabella** (Stajsic) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea victoriae* subsp. *brindabella* Stajsic, *Muelleria* 28: 19. 2010.
- Hakea bronwenae** (Keighery) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea bronwenae* Keighery, *Nuytsia* 7: 128. 1990.
- Hakea bundera** (Keighery) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea variifolia* subsp. *bundera* Keighery, *Nuytsia* 12: 294. 1998.
- Hakea burrowa** (Molyneux & Forrester) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea burrowa* Molyneux & Forrester, *Muelleria* 34: 51. 2015.
- Hakea buxifolia** (Sm.) Christenh. & Byng, *comb. nov.* Basionym: *Embothrium buxifolium* Sm., *Spec. Bot. N. Holl.* 29. 1793.
- Hakea byrnesii** (McGill.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea byrnesii* McGill., *New Names Grevillea*: 3. 1986.
- Hakea cagiana** (McGill.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea cagiana* McGill., *New Names Grevillea*: 3. 1986.
- Hakea calcicola** (A.S.George) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea calcicola* A.S.George, *J. Roy. Soc. Western Australia* 50: 97. 1968.
- Hakea caleyana** (Olde) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea laurifolia* subsp. *caleyana* Olde, *Telopea* 18: 104. 2015.
- Hakea caleyi** (R.Br.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea caleyi* R.Br., *Prod. Fl. Nov. Holl., Suppl.* 1: 22. 1830.
- Hakea calliantha** (Makinson & Olde) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea calliantha* Makinson & Olde, *Telopea* 4: 351. 1991.
- Hakea callichlaena** (Molyneux & Stajsic) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea callichlaena* Molyneux & Stajsic, *Muelleria* 22: 38. 2005.
- Hakea camellia** Christenh. & Byng, *nom. nov.* Replaced synonym: *Grevillea latifolia* C.Gardner, *Bull. Woods Forests Dept., W. Australia* 32: 43. 1923, not: *Hakea latifolia* hort. ex Colla. Etymology: This species has large evergreen leaves, like a *Camellia* (Theaceae).
- Hakea candelabroides** (C.A.Gardner) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea candelabroides* C.A.Gardner, *J. Roy. Soc. Western Australia* 47: 56. 1964.
- Hakea candicans** (C.A.Gardner) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea candicans* C.A.Gardner, *J. Roy. Soc. Western Australia* 27: 170. 1943.
- Hakea capitellata** (Meisn.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea capitellata* Meisn., *Prod. (A.P. de Candolle)* 14: 356. 1856.
- Hakea carduifolia** (A.Cunn. ex Benth.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea carduifolia* A.Cunn. ex Benth., *Fl. Austral.* 5: 456. 1870. Replaced synonym: *Grevillea cunninghamii* R.Br., *Prod. Fl. Nov. Holl., Suppl.* 1: 23. 1830. not: *Hakea cunninghamii* R.Br.
- Hakea celata** (Molyneux) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea celata* Molyneux, *Muelleria* 8: 311. 1995.
- Hakea centristigma** (McGill.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea drummondii* subsp. *centristigma* McGill., *New Names Grevillea*: 5. 1986.
- Hakea ceratocarpa** (Diels ex Diels & E.Pritz.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea ceratocarpa* Diels ex Diels & E.Pritz., *Bot. Jahrb. Syst.* 35: 157. 1904.
- Hakea cheilocarpa** (Makinson) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea cheilocarpa* Makinson, *Fl. Australia* 17A: 505. 2000.
- Hakea chloroxantha** (Diels) Christenh. & Byng, *comb. nov.* Basionym: *Finschia chloroxantha* Diels, *Bot. Jahrb. Syst.* 54: 204. 1916.
- Hakea christinae** (McGill.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea christinae* McGill., *New Names Grevillea*: 4. 1986.
- Hakea chrysophaea** (F.Muell. ex Meisn.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea chrysophaea* F.Muell. ex Meisn., *Linnaea* 26: 357. 1854.
- Hakea cincta** (Molyneux & Stajsic) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea miqueliana* subsp. *cincta* Molyneux & Stajsic, *Muelleria* 22: 50. 2005.
- Hakea cirsifolia** (Meisn.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea cirsifolia* Meisn., *Pl. Preiss. (Lehmann)* 2: 253. 1848.
- Hakea coccinea** (Meisn.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea coccinea* Meisn., *Hooker's J. Bot. Kew Gard. Misc.* 7: 76. 1855.
- Hakea concinna** (R.Br.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea concinna* R.Br., *Trans. Linn. Soc. London, Bot.* 10: 172. 1810.
- Hakea confertifolia** (F.Muell.) Christenh. & Byng,

- comb. nov.* Basionym: *Grevillea confertifolia* F.Muell., *Trans. Phil. Soc. Victoria* 1: 22. 1854.
- Hakea corrugata** (Olde & Marriott) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea corrugata* Olde & Marriott, *Nuytsia* 9: 247. 1993.
- Hakea cravenii** (Makinson) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea cravenii* Makinson, *Fl. Australia* 17A: 494. 2000.
- Hakea crithmifolia** (R.Br.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea crithmifolia* R.Br., *Prodr. Fl. Nov. Holl.*, *Suppl.* 1: 23. 1830.
- Hakea crowleyae** (Olde & Marriott) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea crowleyae* Olde & Marriott, *Nuytsia* 9: 271. 1993.
- Hakea ctenophylla** (Meisn.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea ctenophylla* Meisn., *Prodr. [A. P. de Candolle]* 14: 372. 1856. Replaced synonym *Grevillea pectinata* R.Br., *Prodr. Fl. Nov. Holl.*, *Suppl.* 1: 23. 1830, not: *Hakea pectinata* Dum.Cours.
- Hakea cullenii** (Olde & Marriott) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea obliquistigma* subsp. *cullenii* Olde & Marriott, *Grevillea Book* 1: 1. 1994.
- Hakea curviloba** (McGill.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea curviloba* McGill., *New Names Grevillea*: 4. 1986.
- Hakea cygnopotamica** Christenh. & M.W.Chase, *nom. nov.* Replaced synonym: *Anadenia tenuiflora* Lindl., *Sketch Veg. Swan R.* 31. 1839, not: *Hakea tenuiflora* Dum.Cours. Etymology: This species is named for the Swan River in Perth, from where this species was described.
- Hakea cymbiformis** (Olde & Marriott) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea biformis* subsp. *cymbiformis* Olde & Marriott, *Grevillea Book* 1: 176. 1994.
- Hakea cyranostigma** (McGill.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea cyranostigma* McGill., *Telopea* 1: 20. 1975.
- Hakea dasycarpa** (McGill.) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea dryandri* subsp. *dasycarpa* McGill., *New Names Grevillea*: 5. 1986.
- Hakea decipiens** (McGill.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea decipiens* McGill., *New Names Grevillea*: 4. 1986.
- Hakea decora** (Domin) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea decora* Domin, *Biblioth. Bot.* 22(89): 589. 1921.
- Hakea deflexa** (F.Muell.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea deflexa* F.Muell., *Australasian Chemist and Druggist* 5: 72. 1883.
- Hakea delta** (McGill.) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea thelemanniana* subsp.
- delta McGill., *New Names Grevillea*: 15. 1986.
- Hakea depauperata** (R.Br.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea depauperata* R.Br., *Prodr. Fl. Nov. Holl.*, *Suppl.* 1: 21. 1930.
- Hakea deurrens** (Ewart) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea deurrens* Ewart in Ewart & Davies, *Fl. Northern Territory*: 83. 1917.
- Hakea didymobotrya** (Meisn.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea didymobotrya* Meisn., *Prodr. [A. P. de Candolle]* 14: 386. 1856.
- Hakea didymochiton** (Makinson) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea irrasa* subsp. *didymochiton* Makinson, *Fl. Australia* 17A: 503. 2000.
- Hakea dielsiana** (C.A.Gardner) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea dielsiana* C.A.Gardner, *J. Roy. Soc. Western Australia* 27: 169. 1943.
- Hakea diffusa** (Sieber ex Spreng.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea diffusa* Sieber ex Spreng., *Cur. Post. Syst. Veg.* 4(2): 46. 1827.
- Hakea digitata** (F.Muell.) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea apiciloba* var. *digitata* F.Muell., *Fragm. Phytogr. Austral.* 10: 46. 1876.
- Hakea dilatata** (R.Br.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea ilicifolia* var. *dilatata* R.Br., *Prodr. Fl. Nov. Holl.*, *Suppl.* 1: 21. 1830.
- Hakea dimidiata** (F.Muell.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea dimidiata* F.Muell., *Fragm. Phytogr. Austral.* 3: 146. 1863.
- Hakea diminuta** (L.A.S.Johnson) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea diminuta* L.A.S.Johnson, *Contr. New South Wales Natl. Herb.* 3: 95. 1962.
- Hakea dimorpha** (F.Muell.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea dimorpha* F.Muell., *Trans. Phil. Soc. Victoria* 1: 21. 1854.
- Hakea disjuncta** (F.Muell.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea disjuncta* F.Muell., *Fragm. Phytogr. Austral.* 6: 206. 1868.
- Hakea diversifolia** (Meisn.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea diversifolia* Meisn., *Pl. Preiss. (Lehmann)* 1: 547. 1845.
- Hakea dixoniana** Christenh. & M.W.Chase, *nom. nov.* Replaced synonym: *Grevillea preissii* Meisn., *Pl. Preiss. (Lehmann)* 1: 543. 1845, not: *Hakea preissii* Meisn. Etymology: This species is named in honour of Kingsley Dixon, for his contributions to restoration ecology and conservation of the Australian flora.
- Hakea dolichopoda** (McGill.) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea disjuncta* subsp. *dolichopoda* McGill., *New Names Grevillea*: 5. 1986.
- Hakea donaldiana** (Kenneally) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea donaldiana*, *Western*



**Figure 10: Angiosperms (Eudicots).** A, *Hakea annulifera* (F.Muell.) Christenh. & Byng; B, *Hakea aquifolium* (Lindl.) Christenh. & Byng; C, *Hakea arachnoidea* Christenh. & M.W.Chase; D, *Hakea asparagoides* (Meisn.) Christenh. & Byng; E, *Hakea asteriscosa* (Diels ex Diels & E.Pritz.) Christenh. & Byng; and F, *Hakea dryandrodes* (C.A.Gardner) Christenh. & Byng. All images © Maarten Christenhusz.

- Australian Naturalist* 17: 113. 1988.
- Hakea dryandri** (R.Br.) Christenh. & Byng, *comb. nov.*  
Basionym: *Grevillea dryandri* R.Br., *Trans. Linn. Soc. London, Bot.* 10: 175. 1910.
- Hakea dryandrodes** (C.A.Gardner) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea dryandrodes* C.A.Gardner, *J. Roy. Soc. Western Australia* 19: 81. 1934. (Figure 10F)
- Hakea dryophylla** (N.A.Wakef.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea dryophylla* N.A.Wakef., *Victorian Naturalist* 73: 74. 1956.
- Hakea dubia** (Domin) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea fasciculata* var. *dubia* Domin, *Mem. Soc. Sci. Bohème* (Věstn. Král. České Společn. Nauk. Tř. Mat.-Přír.) 2: 10. 1923. Replaced synonym: *Grevillea crassifolia* Domin, *Mem. Soc. Sci. Bohème* (Věstn. Král. České Společn. Nauk. Tř. Mat.-Přír.) 2: 10. 1923, not: *Hakea crassifolia* Meisn.
- Hakea dumetorum** (Meisn.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea dumetorum* Meisn., *Prod. [A. P. de Candolle]* 14: 378. 1856.
- Hakea dunlopii** (Makinson) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea dunlopii* Makinson, *Fl. Australia* 17A: 494. 2000.
- Hakea ecorniculata** (Olde & Marriott) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea buxifolia* subsp. *ecorniculata* Olde & Marriott, *Telopea* 5: 709. 1994.
- Hakea elbertii** (Sleumer) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea elbertii* Sleumer, *Blumea* 8: 2. 1955.
- Hakea elliotii** (Olde & Marriott) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea insignis* subsp. *elliotii* Olde & Marriott, *Nuytsia* 9: 285. 1993.
- Hakea elongata** (Olde & Marriott) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea elongata* Olde & Marriott, *Grevillea Book* 1: 175. 1994.
- Hakea endlicheriana** (Meisn.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea endlicheriana* Meisn., *Pl. Preiss. (Lehmann)* 1: 546. 1845.
- Hakea epicroca** (Stajsic & Molyneux) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea epicroca* Stajsic & Molyneux, *Fl. Australia* 17A: 502. 2000.
- Hakea erectiloba** (F.Muell.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea erectiloba* F.Muell., *Fragm. Phytogr. Austral.* 1: 44. 1858.
- Hakea eremophila** (Diels ex Fiels & E.Pritz.) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea integrifolia* var. *eremophila* Diels ex Fiels & E.Pritz., *Bot. Jahrb. Syst.* 35: 156. 1904.
- Hakea ericifolia** (R.Br.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea ericifolia* R.Br., *Prod. Fl. Nov. Holl., Suppl.* 1: 20. 1830. Replaced synonym: *Grevillea lanigera* A.Cunn. ex R.Br., *Suppl. Prod. Fl.* Nov. Holl.: 20. 1830, not: *Hakea lanigera* Ten.
- Hakea eriobotrya** (F.Muell.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea eriobotrya* F.Muell., *Fragm. Phytogr. Austral.* 10: 44. 1876.
- Hakea eriostachya** (Lindl.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea eriostachya* Lindl., *Sketch Veg. Swan R.*: 36. 1840.
- Hakea eryngioides** (Benth.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea eryngioides* Benth., *Fl. Austral.* 5: 476. 1870.
- Hakea erythroclada** (W.Fitzg.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea erythroclada* W.Fitzg., *J. Roy. Soc. Western Australia* 3: 132. 1918.
- Hakea evanescens** (Olde & Marriott) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea evanescens* Olde & Marriott, *Grevillea Book* 1: 181. 1994.
- Hakea evansiana** (MacKee) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea evansiana* MacKee, *Proc. Linn. Soc. New South Wales* 78: 49. 1953.
- Hakea excelsior** (Diels ex Diels & E.Pritz.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea excelsior* Diels ex E.Pritz., *Bot. Jahrb. Syst.* 35: 151. 1904.
- Hakea exposita** (Olde & Marriott) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea exposita* Olde & Marriott, *Grevillea Book* 1: 181. 1994.
- Hakea extorris** (S.Moore) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea extorris* S.Moore, *J. Linn. Soc., Bot.* 34: 221. 1899.
- Hakea exul** (Lindl.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea exul* Lindl., *J. Hort. Soc. London* 6: 273. 1851.
- Hakea fasciculata** (R.Br.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea fasciculata* R.Br., *Prod. Fl. Nov. Holl., Suppl.* 1: 20. 1830.
- Hakea fastigiata** (Olde & Marriott) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea fastigiata* Olde & Marriott, *Grevillea Book* 1: 186. 1994.
- Hakea fecunda** (Makinson) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea obtusiflora* subsp. *fecunda* Makinson, *Telopea* 7: 144. 1997.
- Hakea ferricola** (Keighery) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea manglesioides* subsp. *ferricola* Keighery, *Fl. Australia* 17A: 497. 2000.
- Hakea ferruginiflora** (C.T.White) Christenh. & Byng, *comb. nov.* Basionym: *Finschia ferruginiflora* C.T.White, *Pacific Sci.* 3: 190. 1949.
- Hakea fililoba** (McGill.) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea thelemanniana* subsp. *fililoba* McGill., *New Names Grevillea*: 15. 1986.
- Hakea filipendula** (McGill.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea diffusa* subsp. *filipendula* McGill., *New Names Grevillea*: 4. 1986.
- Hakea filix** Christenh. & Byng, *nom. nov.* Replaced

synonym: *Grevillea longifolia* R.Br., *Suppl. Prodr. Fl. Nov. Holl.*: 22. 1830, not: *Hakea longifolia* Dum. Cours. Etymology: This species is called 'fern-leaf spider flower', hence *filix*, meaning fern.

***Hakea fistulosa* (A.S.George) Christenh. & Byng, comb. nov.** Basionym: *Grevillea fistulosa* A.S.George, *Nuytsia* 1: 371. 1974.

***Hakea fitzgeraldii* Christenh. & M.W.Chase, nom. nov.** Replaced synonym: *Grevillea stenophylla* W.Fitzg., *J. W. Austral. Nat. Hist. Soc.* 2: 30. 1905, not: *Hakea stenophylla* A.Cunn. ex R.Br. Etymology: This species is named for William Fitzgerald, who first described it.

***Hakea flexuosa* (Lindl.) Christenh. & Byng, comb. nov.** Basionym: *Anadenia flexuosa* Lindl., *Sketch Veg. Swan R.*: 31. 1839.

***Hakea floribunda* (R.Br.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea floribunda* R.Br., *Prodr. Fl. Nov. Holl., Suppl.* 1: 19. 1830.

***Hakea floripendula* (R.V.Sm.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea floripendula* R.V.Sm., *Muelleria* 4: 423. 1981.

***Hakea fluviatilis* (Makinson) Christenh. & Byng, comb. & stat. nov.** Basionym: *Grevillea neurophylla* subsp. *fluviatilis* Makinson, *Fl. Australia* 17A: 501. 2000.

***Hakea formosa* (McGill.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea formosa* McGill., *New Names Grevillea*: 6. 1986.

***Hakea fuchsoides* Christenh. & M.W.Chase, nom. nov.** Replaced synonym: *Grevillea bipinnatifida* R.Br., *Prodr. Fl. Nov. Holl., Suppl.* 1: 23. 1830, not: *Hakea bipinnatifida* R.Br. Etymology: This species resembles the genus *Fuchsia* (Onagraceae).

***Hakea fulgens* (C.A.Gardner) Christenh. & Byng, comb. nov.** Basionym: *Grevillea fulgens* C.A.Gardner, *J. Roy. Soc. Western Australia* 47: 55. 1964.

***Hakea funicularis* (Olde & Marriott) Christenh. & Byng, comb. & stat. nov.** Basionym: *Grevillea Grevillea obliquistigma* subsp. *funicularis* Olde & Marriott, *Grevillea Book* 1: 180. 1994.

***Hakea fuscolutea* (Keighery) Christenh. & Byng, comb. nov.** Basionym: *Grevillea fuscolutea* Keighery, *Nuytsia* 8: 228. 1992.

***Hakea gariwerdensis* (Makinson) Christenh. & Byng, comb. nov.** Basionym: *Grevillea gariwerdensis* Makinson, *Fl. Australia* 17A: 501. 2000.

***Hakea ×gaudichaudii* (R.Br. ex Gaudich.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea gaudichaudii* R.Br. ex Gaudich., *Voy. Uranie, Bot.*: 443. 1829 (= *H. acanthifolia* × *H. laurifolia*).

***Hakea georgeana* (McGill.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea georgeana* McGill., *New Names Grevillea*: 6. 1986.

***Hakea geraldtonica* Christenh. & M.W.Chase, nom.**

***nov.*** Replaced synonym: *Grevillea commutata* F.Muell., *Fragmenta Phytographiae Australis* 6: 207. 1868, not: *Hakea commutata* F.Muell. Etymology: This species is found near Geraldton, Western Australia, hence the name.

***Hakea gillivrayi* (Hook.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea gillivrayi* Hook., *Hooker's J. Bot. Kew Gard. Misc.* 6: 358. 1854. (Figure 11A)

***Hakea glabrescens* (Olde & Marriott) Christenh. & Byng, comb. nov.** Basionym: *Grevillea glabrescens* Olde & Marriott, *Telopea* 5: 406. 1993.

***Hakea globosa* (C.A.Gardner) Christenh. & Byng, comb. nov.** Basionym: *Grevillea globosa* C.A.Gardner, *J. Roy. Soc. Western Australia* 47: 55. 1964.

***Hakea glossadenia* (McGill.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea glossadenia* McGill., *Telopea* 1: 21. 1975.

***Hakea goodii* (R.Br.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea goodii* R.Br., *Trans. Linn. Soc. London, Bot.* 10: 174. 1910.

***Hakea gordoniiana* (C.A.Gardner) Christenh. & Byng, comb. nov.** Basionym: *Grevillea gordoniiana* C.A.Gardner, *J. Roy. Soc. Western Australia* 47: 56. 1964.

***Hakea grandis* (Keighery) Christenh. & Byng, comb. & stat. nov.** Basionym: *Grevillea brachystylis* subsp. *grandis* Keighery, *Western Australian Naturalist* 27: 12. 2009.

***Hakea granitica* Christenh. & M.W.Chase, nom. nov.** Replaced synonym: *Grevillea neurophylla* Gand., *Bull. Soc. Bot. France* 66: 231. 1919, not: *Hakea neurophylla* Meisn. Etymology: This is commonly called 'granite grevillea'.

***Hakea granulifera* (McGill.) Christenh. & Byng, comb. & stat. nov.** Basionym: *Grevillea obtusiflora* subsp. *granulifera* McGill., *New Names Grevillea*: 11. 1986.

***Hakea granulosa* (McGill.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea granulosa* McGill., *New Names Grevillea*: 7. 1986.

***Hakea grevilleoides* Christenh. & M.W.Chase, nom. nov.** Replaced synonym: *Grevillea hookeriana* Meisn., *Pl. Preiss. (Lehmann)* 1: 546. 1845, not: *Hakea hookeriana* Meisn., nor: *Hakea pritzelii* Diels. Etymology: This species is a 'typical' toothbrush grevillea, hence the name.

***Hakea guthrieana* (Olde & Marriott) Christenh. & Byng, comb. nov.** Basionym: *Grevillea guthrieana* Olde & Marriott, *Telopea* 5: 731. 1994.

***Hakea hakeoides* (Meisn.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea hakeoides* Meisn., *Pl. Preiss. (Lehmann)* 2: 252. 1848.

***Hakea halmaturina* (Tate) Christenh. & Byng, comb. nov.** Basionym: *Grevillea halmaturina* Tate, *Handb.*



Figure 11: **Angiosperms (Eudicots)**. A, *Hakea gibbiflora* (Hook.) Christenh. & Byng; B, *Hakea laurina* (Schltdl.) Christenh. & Byng; C, *Hakea laurina* (F.Muell.) Christenh. & Byng; D, *Hakea laurina* (A.Cunn. ex R.Br.) Christenh. & M.W.Chase; E, *Hakea laurina* (F.Muell.) Christenh. & M.W.Chase; and F, *Hakea laurina* (F.Muell.) Christenh. & Byng. All images © Maarten Christenhusz.

- Fl. Extratrop. South Australia*: 83, 228. 1890.
- Hakea haplantha** (F.Muell.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea haplantha* F.Muell. ex Benth., *Fl. Austral.* 5: 451. 1870.
- Hakea heliosperma** (R.Br.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea heliosperma* R.Br., *Trans. Linn. Soc. London, Bot.* 10: 176. 1810.
- Hakea helmsiae** (F.M.Bailey) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea helmsiae* F.M.Bailey, *Queensland Agric. J.* 4: 195. 1899.
- Hakea hilliana** (F.Muell.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea hilliana* F.Muell., *Trans. Phil. Inst. Victoria* 2: 72. 1857.
- Hakea hirsuta** (Olde & Marriott) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea dryandroidea* subsp. *hirsuta* Olde & Marriott, *Nuytsia* 9: 270. 1993.
- Hakea hirtella** (Benth.) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea pinaster* var. *hirtella* Benth., *Fl. Austral.* 5: 427. 1870.
- Hakea hislopii** (Olde & Marriott) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea hislopii* Olde & Marriott, *Nuytsia* 18: 224. 2008.
- Hakea hockingsii** (Molyneux & Olde) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea hockingsii* Molyneux & Olde, *Telopea* 5: 784. 1994.
- Hakea hedgei** (Olde & Marriott) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea hedgei* Olde & Marriott, *Grevillea Book* 1: 185. 1994.
- Hakea holleae** Christenh. & Byng, *nom. nov.* Replaced synonym: *Grevillea pinifolia* Meisn., *Prodr. [A. P. de Candolle]* 14: 350. 1856, not: *Hakea pinifolia* Knight. Etymology: This species has needle-like leaves like the spindle that fell into the well of Mother Holle (or Frau Hulda), from an old German fairytale, popularised by the brothers Grimm in the 19<sup>th</sup> Century.
- Hakea hopperiana** Christenh. & M.W.Chase, *nom. nov.* Replaced synonym: *Grevillea drummondii* Meisn., *Pl. Preiss. (Lehmann)* 1: 536. 1845, not: *Hakea drummondii* G.Don ex Meisn. Etymology: This species is named in honour of Stephen Hopper, for his contributions on conservation and flora of Western Australia.
- Hakea howartharra** (Olde & Marriott) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea bracteosa* subsp. *howartharra* Olde & Marriott, *Nuytsia* 18: 232. 2008.
- Hakea huegelii** (Meisn.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea huegelii* Meisn., *Pl. Preiss. (Lehmann)* 1: 543. 1845.
- Hakea humifusa** (Olde & Marriott) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea humifusa* Olde & Marriott, *Grevillea Book* 1: 182. 1994.
- Hakea humilis** (Makinson) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea humilis* Makinson, *Fl. Australia* 17A: 499. 2000.
- Hakea hypargyrea** (F.Muell.) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea ramosissima* var. *hypargyrea* F.Muell., *Fragm. Phytogr. Austral.* 8: 150. 1874.
- Hakea iaspicula** (McGill.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea iaspicula* McGill., *New Names Grevillea*: 7. 1986.
- Hakea ilex** Christenh. & M.W.Chase, *nom. nov.* Replaced synonym: *Grevillea longicuspis* McGill., *New Names Grevillea*: 9. 1986, not: *Hakea longicuspis* Hook. Etymology: This species has a holly-like leaf, hence the name.
- Hakea imberbis** (Makinson) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea imberbis* Makinson, *Fl. Australia* 17A: 501. 2000.
- Hakea inconspicua** (Diels ex Diels & E.Pritz.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea inconspicua* Diels ex Diels & E.Pritz., *Bot. Jahrb. Syst.* 35: 153. 1904.
- Hakea incurva** (Diels) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea integrifolia* var. *incurva* Diels, *Bot. Jahrb. Syst.* 35: 157. 1904.
- Hakea infecunda** (McGill.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea infecunda* McGill., *New Names Grevillea*: 7. 1986.
- Hakea infundibularis** (A.S.George) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea infundibularis* A.S.George, *Nuytsia* 1: 371. 1974.
- Hakea insignis** (Kippist ex Meisn.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea insignis* Kippist ex Meisn., *Hooker's J. Bot. Kew Gard. Misc.* 7: 76. 1855.
- Hakea integrifolia** (Endl.) Christenh. & Byng, *comb. nov.* Basionym: *Anadenia integrifolia* Endl., *Ann. Wien. Mus.* II, 209: 21. 1839.
- Hakea involucrata** (A.S.George) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea involucrata* A.S.George, *Nuytsia* 1: 372. 1974.
- Hakea involuta** (McGill.) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea didymobotrya* subsp. *involuta* McGill., *New Names Grevillea*: 4. 1986.
- Hakea irrasa** (Makinson) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea irrasa* Makinson, *Fl. Australia* 17A: 503. 2000.
- Hakea jephcottii** (J.H.Willis) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea jephcottii* J.H.Willis, *Muelleria* 1: 117. 1967.
- Hakea johnsonii** (McGill.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea johnsonii* McGill., *Telopea* 1: 22. 1975.
- Hakea juncifolia** (Hook.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea juncifolia* Hook., *J. Exp.*

- Inter. Trop. Australia (Mitchell)*: 341. 1848.
- Hakea juniperina (R.Br.) Christenh. & Byng, comb. nov.**  
Basionym: *Grevillea juniperina* R.Br., *Trans. Linn. Soc. London, Bot.* 10: 171. 1810.
- Hakea kedumbensis (McGill.) Christenh. & Byng, comb. & stat. nov.** Basionym: *Grevillea obtusiflora* subsp. *kedumbensis* McGill., *New Names Grevillea*: 11. 1986.
- Hakea kenneallyi (McGill.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea kenneallyi* McGill., *New Names Grevillea*: 8. 1986.
- Hakea kennedyana (F.Muell.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea kennedyana* F.Muell., *Australasian Chemist and Druggist* 2: 4. 1887.
- Hakea kimberleyensis Christenh. & Byng, nom. nov.**  
Basionym: *Grevillea microcarpa* Olde & Marriott, *Telopea* 5: 415. 1993, not: *Hakea microcarpa* R.Br. Etymology: This is a species native to the Kimberley Range.
- Hakea kirkalocka (Olde & Marriott) Christenh. & Byng, comb. nov.** Basionym: *Grevillea kirkalocka* Olde & Marriott, *Nuytsia* 15: 93. 2002.
- Hakea lanata (Olde & Marriott) Christenh. & Byng, comb. & stat. nov.** Basionym: *Grevillea coccinea* subsp. *lanata* Olde & Marriott, *Nuytsia* 9: 277. 1993.
- Hakea laurifolia (Sieber ex Spreng.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea laurifolia* Sieber ex Spreng., *Cur. Post. Syst. Veg.* 4: 46. 1827.
- Hakea lavandulacea (Schltdl.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea lavandulacea* Schltdl., *Linnaea* 20: 586. 1847. (Figure 11B)
- Hakea ledifolia Christenh. & Byng, nom. nov.** Replaced synonym: *Grevillea costata* C.Gardner ex A.S.George, *Nuytsia* 1: 370. 1974, not: *Hakea costata* Meisn. Etymology: This species has leaves that resemble those of *Rhododendron* subsect. *Ledum*.
- Hakea leiophylla (F.Muell. ex Benth.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea leiophylla* F.Muell. ex Benth., *Fl. Austral.* 5: 471. 1870.
- Hakea leptobotrys (Meisn.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea leptobotrys* Meisn., *Pl. Preiss. (Lehmann)* 2: 256. 1848.
- Hakea leptopoda (McGill.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea leptopoda* McGill., *New Names Grevillea*: 8. 1986.
- Hakea leucoclada (McGill.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea leucoclada* McGill., *New Names Grevillea*: 8. 1986.
- Hakea leucoptera (Meisn.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea leucoptera* Meisn., *Hooker's J. Bot. Kew Gard. Misc.* 7: 76. 1855.
- Hakea levigata (Olde & Marriott) Christenh. & Byng, comb. nov.** Basionym: *Grevillea levigata* Olde & Marriott,
- Grevillea Book* 1: 175. 1994.
- Hakea linearifolia (Cav.) Christenh. & Byng, comb. nov.** Basionym: *Embothrium linearifolium* Cav., *Icon. Descr. Pl.* 4: 59. 1797.
- Hakea linsmithii (McGill.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea linsmithii* McGill., *New Names Grevillea*: 8. 1986.
- Hakea lissoleura (McGill.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea lissoleura* McGill., *New Names Grevillea*: 9. 1986.
- Hakea lobata (F.Muell.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea lobata* F.Muell., *Trans. Phil. Soc. Victoria* 1: 22. 1854.
- Hakea loboana (Domin) Christenh. & Byng, comb. nov.**  
Basionym: *Grevillea loboana* Domin, *Mem. Soc. Sci. Bohême (Věstn. Král. České Společn. Nauk. Tř. Mat.-Přír.)* 2: 11. 1923. Syn.: *Grevillea diversifolia* subsp. *subtersericata* McGill., *New Names Grevillea*: 5. 1986.
- Hakea longistyla (Hook.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea longistyla* Hook., *J. Exp. Int. Trop. Australia (Mitchell)*: 343. 1848.
- Hakea lucens (Makinson) Christenh. & Byng, comb. & stat. nov.** Basionym: *Grevillea humilis* subsp. *lucens* Makinson, *Fl. Australia* 17A: 500. 2000.
- Hakea lullfitzii (McGill.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea lullfitzii* McGill., *New Names Grevillea*: 9. 1986.
- Hakea maccutcheonii (Keighery & Cranfield) Christenh. & Byng, comb. nov.** Basionym: *Grevillea maccutcheonii* Keighery & Cranfield, *Nuytsia* 11: 33. 1996.
- Hakea macleayana (McGill.) Christenh. & Byng, comb. & stat. nov.** Basionym: *Grevillea barklyana* subsp. *macleayana* McGill., *New Names Grevillea*: 2. 1986.
- Hakea macleayana (McGill.) Christenh. & Byng, comb. & stat. nov.** Basionym: *Grevillea barklyana* subsp. *macleayana* McGill., *New Names Grevillea*: 2. 1986.
- Hakea macrostylis (F.Muell.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea macrostylis* F.Muell., *Fragm. Phytogr. Austral.* 1: 137. 1859.
- Hakea magnifica (McGill.) Christenh. & Byng, comb. & stat. nov.** Basionym: *Grevillea petrophiloides* subsp. *magnifica* McGill., *New Names Grevillea*: 11. 1986.
- Hakea maherae (Makinson & M.D.Barrett) Christenh. & Byng, comb. nov.** Basionym: *Grevillea maherae* Makinson & M.D.Barrett, *Fl. Australia* 17A: 493. 2000.
- Hakea makinsonii (McGill.) Christenh. & Byng, comb. nov.** Basionym: *Grevillea makinsonii* McGill., *New Names Grevillea*: 9. 1986.
- Hakea manglesii (Graham) Christenh. & Byng, comb. nov.** Basionym: *Anadenia manglesii* Graham,

- Edinburgh New Phil. J. 27: 189. 1839.
- Hakea manglesioides** (Meisn.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea manglesioides* Meisn., *Pl. Preiss. (Lehmann)* 1: 547. 1845.
- Hakea mantalakifera** Christenh. & M.W.Chase, *nom. nov.* Replaced synonym: *Grevillea glauca* Banks & Sol. ex Knight, *Cult. Prot.* 121. 1809, not: *Hakea glauca* Knight. Etymology: The common name is bushman's clothes peg, hence μανταλάκι meaning clothes peg and φέρει, to bear.
- Hakea maritima** (Makinson) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea humilis* subsp. *maritima* Makinson, *Fl. Australia* 17A: 500. 2000.
- Hakea mariottii** (Olde) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea mariottii* Olde, *Western Australian Naturalist Ed.* 3, 18: 75. 1990.
- Hakea masonii** (Olde & Marriott) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea masonii* Olde & Marriott, *Telopea* 5: 720. 1994.
- Hakea maxwellii** (McGill.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea maxwellii* McGill., *New Names Grevillea*: 9. 1986.
- Hakea mcgillivrayi** (I.M.Turner) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea mcgillivrayi* I.M.Turner, *Ann. Bot. Fenn.* 51: 307. 2014.
- Hakea meisneri** (Montrouz.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea meisneri* Montrouz., *Mém. Acad. Roy. Sci., Lyon, n.s.*, 10: 248. 1860.
- Hakea metamorpha** (Makinson) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea metamorpha* Makinson, *Fl. Australia* 17A: 506. 2000.
- Hakea metaxa** (Makinson) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea manglesioides* subsp. *metaxa* Makinson, *Fl. Australia* 17A: 497. 2000.
- Hakea micrantha** (Meisn.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea micrantha* Meisn., *Linnaea* 26: 358. 1854.
- Hakea microstegia** (Molyneux) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea microstegia* Molyneux, *Muelleria* 3: 141. 1975.
- Hakea microstyla** (M.D.Barrett & Makinson) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea microstyla* M.D.Barrett & Makinson, *Fl. Australia* 17A: 495. 2000.
- Hakea miniata** (W.Fitzg.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea miniata* W.Fitzg., *Western Mail*: 21. 1906, and *J. Proc. Roy. Soc. Western Australia* 3: 131. 1918.
- Hakea minutiflora** (McGill.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea minutiflora* McGill., *New Names Grevillea*: 10. 1986.
- Hakea miquelianana** (F.Muell.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea miquelianana* F.Muell., *Trans.* & Proc. Victorian Inst. Advancem. Sci. 1: 132. 1855.
- Hakea mollis** (Olde & Molyneux) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea mollis* Olde & Molyneux, *Telopea* 5: 781. 1994.
- Hakea molyneuxii** (McGill.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea molyneuxii* McGill., *New Names Grevillea*: 10. 1986.
- Hakea monslacana** (Molyneux & Stajsic in Makinson) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea monslacana* Molyneux & Stajsic in Makinson, *Fl. Australia* 17A: 502. 2000.
- Hakea montana** (R.Br.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea montana* R.Br., *Trans. Linn. Soc. London, Bot.* 10: 172. 1810.
- Hakea monticola** (Meisn.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea monticola* Meisn., *Pl. Preiss. (Lehmann)* 2: 259. 1848.
- Hakea montis-cole** (R.V.Sm.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea montis-cole* R.V.Sm., *Muelleria* 5: 223. 1983.
- Hakea moroka** (Molyneux & Stajsic) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea miquelianana* subsp. *moroka* Molyneux & Stajsic in Makinson, *Fl. Australia* 17A: 502. 200.
- Hakea mucronulata** (R.Br.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea mucronulata* R.Br., *Trans. Linn. Soc. London, Bot.* 10: 173. 1810.
- Hakea muelleri** (Benth.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea muelleri* Benth., *Fl. Austral.* 5: 479. 1870.
- Hakea murex** (McGill.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea murex* McGill., *New Names Grevillea*: 10. 1986.
- Hakea muricata** (J.M.Black) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea muricata* J.M.Black, *Trans. Roy. Soc. South Australia* 63: 244. 1939.
- Hakea myosodes** (McGill.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea myosodes* McGill., *New Names Grevillea*: 10. 1986.
- Hakea nana** (C.A.Gardner) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea nana* C.A.Gardner, *J. Roy. Soc. Western Australia* 27: 168. 1943.
- Hakea nematophylla** (F.Muell.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea nematophylla* F.Muell., *Fragm. Phytogr. Austral.* 1: 136. 1859.
- Hakea neodissecta** (I.M.Turner) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea neodissecta* I.M.Turner, *Ann. Bot. Fenn.* 51: 307. 2014. Replaced synonym: *Grevillea dissecta* Olde & Marriott, *Nuytsia* 9: 282. 1993, *nom. illeg.*
- Hakea neorigida** (I.M.Turner) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea neorigida* I.M.Turner, *Ann. Bot. Fenn.* 51: 307. 2014. Replaced synonym: *Grevillea rigida* Olde & Marriott, *Grevillea Book* 1:

186. 1995, nom. illeg.
- Hakea newbeyi** (McGill.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea newbeyi* McGill., *New Names Grevillea*: 10. 1986.
- Hakea nivea** (Olde & Marriott) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea nivea* Olde & Marriott, *Nuytsia* 19: 237. 2009.
- Hakea novae-austrocambriae** Christenh. & M.W.Chase, *nom. nov.* Replaced synonym: *Grevillea canescens* R.Br., *Prodr. Fl. Nov. Holl., Suppl.* 1: 18. 1830, not: *Hakea canescens* Link. Etymology: This species is found in New South Wales, hence the name.
- Hakea nudiflora** (Meisn.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea nudiflora* Meisn., *Prodr. (A. P. de Candolle)* 14: 366. 1856.
- Hakea obliquistigma** (C.A.Gardner) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea obliquistigma* C.A.Gardner, *J. Roy. Soc. Western Australia* 27: 169. 1943.
- Hakea obtecta** (Molyneux) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea obtecta* Molyneux, *Muelleria* 6: 147. 1985.
- Hakea obtusiflora** (R.Br.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea obtusiflora* R.Br., *Prodr. Fl. Nov. Holl., Suppl.* 1: 19. 1830.
- Hakea obtusifolia** (Meisn.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea obtusifolia* Meisn., *Prodr. (A. P. de Candolle)* 14: 356. 1856.
- Hakea occidentalis** (R.Br.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea occidentalis* R.Br., *Trans. Linn. Soc. London, Bot.* 10: 173. 1810.
- Hakea oldei** (McGill.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea oldei* McGill., *New Names Grevillea*: 11. 1986.
- Hakea olearioides** Christenh. & Byng, *comb. nov.* Replaced synonym: *Grevillea erinacea* Meisn., *Hooker's J. Bot. Kew Garden Misc.* 7: 74. 1855, not: *Hakea erinacea* Meisn. Etymology: This species resembles a member of the Asteraceae genus *Olearia*, hence the name.
- Hakea oleoides** (Sieber ex Schult. & Schult.f.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea oleoides* Sieber ex Schult. & Schult.f., *Mant. Ed.* 16, 3: 277. 1827.
- Hakea oligantha** (F.Muell.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea oligantha* F.Muell., *Fragm. Phytogr. Austral.* 6: 206. 1868.
- Hakea oligomera** (McGill.) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea petrophilooides* subsp. *oligomera* McGill., *New Names Grevillea*: 12. 1986.
- Hakea olivacea** (A.S.George) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea olivacea* A.S.George, *Nuytsia* 1: 373. 1974.
- Hakea oncogyne** (Diels ex Diels & E.Pritz.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea oncogyne* Diels ex Diels & E.Pritz., *Bot. Jahrb. Syst.* 35: 149. 1904.
- Hakea ornithopoda** (Meisn.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea ornithopoda* Meisn., *Pl. Preiss. (Lehmann)* 2: 256. 1848.
- Hakea oxyantha** (Makinson) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea oxyantha* Makinson, *Telopea* 7: 130. 1997.
- Hakea pachylostyla** (McGill.) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea willisi* subsp. *pachylostyla* McGill., *New Names Grevillea*: 16. 1986.
- Hakea pachypoda** (O.Schwarz) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea pachypoda* O.Schwarz, *Repert. Spec. Nov. Regni Veg.* 24: 83. 1927. Replaced synonym: *Grevillea mimosoides* R.Br., *Trans. Linn. Soc. London, Bot.* 10: 177. 1810, not: *Hakea mimosoides* A.Cunn. ex Meisn.
- Hakea pagna** (Cranfield) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea bipinnatifida* R.Br. subsp. *pagna* Cranfield, *Nuytsia* 15: 190. 2004.
- Hakea pallarupensis** Christenh. & M.W.Chase, *nom. nov.* Replaced synonym: *Grevillea prostrata* C.A.Gardner & A.S.George, *J. Roy. Soc. Western Australia* 46: 129. not: *Hakea prostrata* R.Br. Etymology: This species is named for the Pallarup Nature Reserve in Western Australia, where it was first discovered.
- Hakea paludosa** (Makinson & Albr.) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea acanthifolia* subsp. *paludosa* Makinson & Albr., *Muelleria* 7: 89. 1989.
- Hakea paniculata** (Meisn.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea paniculata* Meisn., *Pl. Preiss. (Lehmann)* 1: 550. 1845.
- Hakea papillosa** (McGill.) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea manglesioides* subsp. *papillosa* McGill., *New Names Grevillea*: 9. 1986.
- Hakea papuana** (Diels) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea papuana* Diels, *Bot. Jahrb. Syst.* 54: 205. 1916.
- Hakea paradoxa** (F.Muell.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea paradoxa* F.Muell., *Fragm. Phytogr. Austral.* 6: 246. 1868.
- Hakea parallela** (Knight) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea parallela* Knight, *Cult. Prot.* 121. 1809.
- Hakea parallelinervis** (Carrick) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea parallelinervis* Carrick, *Contrib. Herb. Austral.* 15: 1. 1976.
- Hakea parviflora** (R.Br.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea parviflora* R.Br., *Trans. Linn. Soc.*

- London, Bot. 10: 171. 1810.
- Hakea parvula** (Molyneux & Stajsic) Christenh. & Byng, comb. nov. Basionym: *Grevillea parvula* Molyneux & Stajsic, Fl. Australia 17A: 502. 2000.
- Hakea pateana** Christenh. & M.W.Chase, nom. nov. Replaced synonym: *Grevillea intricata* Meisn., Hooker's J. Bot. Kew Garden Misc. 7: 74. 1855, not: *Hakea intricata* R.Br. Etymology: This species is named in honour of John S. Pate, who contributed extensively to the ecology and taxonomy of Western Australian plants.
- Hakea patentiloba** (F.Muell.) Christenh. & Byng, comb. nov. Basionym: *Grevillea patentiloba* F.Muell., Fragm. Phytogr. Austral. 1: 137. 1859.
- Hakea patulifolia** (Gand.) Christenh. & Byng, comb. nov. Basionym: *Grevillea patulifolia* Gand., Bull. Soc. Bot. France 66: 231. 1919.
- Hakea pauciflora** (R.Br.) Christenh. & Byng, comb. nov. Basionym: *Grevillea pauciflora* R.Br., Trans. Linn. Soc. London, Bot. 10: 171. 1810.
- Hakea phanerophlebia** (Diels) Christenh. & Byng, comb. nov. Basionym: *Grevillea phanerophlebia* Diels & E.Pritz., Bot. Jahrb. Syst. 35: 157. 1904.
- Hakea phillipsiana** (McGill.) Christenh. & Byng, comb. nov. Basionym: *Grevillea phillipsiana* McGill., New Names Grevillea: 12. 1986.
- Hakea phylicoides** (R.Br.) Christenh. & Byng, comb. nov. Basionym: *Grevillea phylicoides* R.Br., Trans. Linn. Soc. London, Bot. 10: 174. 1810.
- Hakea pilosa** (A.S.George) Christenh. & Byng, comb. nov. Basionym: *Grevillea pilosa* A.S.George, Western Australian Naturalist 10: 32. 1966.
- Hakea pimeleoides** (W.Fitzg.) Christenh. & Byng, comb. nov. Basionym: *Grevillea pimeleoides* W.Fitzg., J. Proc. Mueller Bot. Soc. Western Australia 1: 37. 1902.
- Hakea pinaster** (Meisn.) Christenh. & Byng, comb. nov. Basionym: *Grevillea pinaster* Meisn., Hooker's J. Bot. Kew Gard. Misc. 7: 76. 1855.
- Hakea pinnatifida** (F.M.Bailey) Christenh. & Byng, comb. nov. Basionym: *Kermadecia pinnatifida* F.M.Bailey, Cat. Woods Queensl.: 69. 1886. Syn.: *Grevillea baileyania* McGill., New Names Grevillea: 2. 1986, not: *Grevillea pinnatifida* Jacques.
- Hakea pinnatisecta** (F.Muell.) Christenh. & Byng, comb. & stat. nov. Basionym: *Grevillea commutata* var. *pinnatisecta* F.Muell., Fragm. Phytogr. Austral. 6: 208. 1868.
- Hakea pityophylla** (F.Muell.) Christenh. & Byng, comb. nov. Basionym: *Grevillea pityophylla* F.Muell., Fragm. Phytogr. Austral. 6: 208. 1868.
- Hakea platypoda** (F.Muell.) Christenh. & Byng, comb. nov. Basionym: *Grevillea platypoda* F.Muell., Fragm.
- Phytogr. Austral.* 6: 205. 1868.
- Hakea pluricaulis** (McGill.) Christenh. & Byng, comb. & stat. nov. Basionym: *Grevillea goodii* subsp. *pluricaulis* McGill., New Names Grevillea: 6. 1986.
- Hakea plurijuga** (F.Muell.) Christenh. & Byng, comb. nov. Basionym: *Grevillea plurijuga* F.Muell., Fragm. Phytogr. Austral. 4: 84. 1864. (Figure 11C)
- Hakea polyacida** (McGill.) Christenh. & Byng, comb. nov. Basionym: *Grevillea polyacida* McGill., New Names Grevillea: 12. 1986.
- Hakea polybotrya** (Meisn.) Christenh. & Byng, comb. nov. Basionym: *Grevillea polybotrya* Meisn. Prodri. [A. P. de Candolle] 14: 386. 1856.
- Hakea polybractea** (H.B.Will.) Christenh. & Byng, comb. nov. Basionym: *Grevillea polybractea* H.B.Will., Victorian Naturalist 44: 139. 1927.
- Hakea polychroma** (Molyneux & Stajsic) Christenh. & Byng, comb. & stat. nov. Basionym: *Grevillea brevifolia* subsp. *polychroma* Molyneux & Stajsic in Makinson, Fl. Australia 17A: 502. 2000.
- Hakea pomponia** Christenh. & M.W.Chase, nom. nov. Replaced synonym: *Grevillea incrassata* Diels & E.Pritz., Bot. Jahrb. Syst. 35: 156. 1904, not: *Hakea incrassata* R.Br. Etymology: The inflorescence resembles a pompon, hence the name.
- Hakea prasina** (McGill.) Christenh. & Byng, comb. nov. Basionym: *Grevillea prasina* McGill., New Names Grevillea: 12. 1986.
- Hakea prominens** (Olde & Marriott) Christenh. & Byng, comb. nov. Basionym: *Grevillea prominens* Olde & Marriott, Nuytsia 9: 262. 1993.
- Hakea psilantha** (McGill.) Christenh. & Byng, comb. nov. Basionym: *Grevillea psilantha* McGill., New Names Grevillea: 12. 1986.
- Hakea psilophylla** (McGill.) Christenh. & Byng, comb. & stat. nov. Basionym: *Grevillea pauciflora* subsp. *psilophylla* McGill., New Names Grevillea: 11. 1986.
- Hakea pteridifolia** (Knight) Christenh. & Byng, comb. nov. Basionym: *Grevillea pteridifolia* Knight, Cult. Prot.: 121. 1809.
- Hakea pterosperma** (F.Muell.) Christenh. & Byng, comb. nov. Basionym: *Grevillea pterosperma* F.Muell., Trans. Phil. Soc. Victoria 1: 22. 1854.
- Hakea pulchella** (R.Br.) Christenh. & Byng, comb. nov. Basionym: *Anadenia pulchella* R.Br., Trans. Linn. Soc. London 10: 167. 1810.
- Hakea punctata** (Olde & Marriott) Christenh. & Byng, comb. nov. Basionym: *Grevillea punctata* Olde & Marriott, Grevillea Book 1: 182. 1994.
- Hakea pungens** (R.Br.) Christenh. & Byng, comb. nov. Basionym: *Grevillea pungens* R.Br., Trans. Linn. Soc. London, Bot. 10: 175. 1810.
- Hakea pyramidalis** (A.Cunn. ex R.Br.) Christenh. & Byng, comb. nov. Basionym: *Grevillea pyramidalis*

- A.Cunn. ex R.Br., *Prodr. Fl. Nov. Holl.*, Suppl. 1: 25. 1830.
- Hakea pythara** (Olde & Marriott) Christenh. & Byng, comb. nov. Basionym: *Grevillea pythara* Olde & Marriott, *Nuytsia* 9: 293. 1993.
- Hakea quadricauda** (Olde & Marriott) Christenh. & Byng, comb. nov. Basionym: *Grevillea quadricauda* Olde & Marriott, *Telopea* 5: 722. 1994.
- Hakea quercifolia** (R.Br.) Christenh. & Byng, comb. nov. Basionym: *Grevillea quercifolia* R.Br., *Prodr. Fl. Nov. Holl.*, Suppl. 1: 23. 1830.
- Hakea quinquenervis** (J.M.Black) Christenh. & Byng, comb. nov. Basionym: *Grevillea quinquenervis* J.M.Black, *Trans. Proc. Report Roy. Soc. South Australia* 33: 225. 1909.
- Hakea ramosissima** (Meisn.) Christenh. & Byng, comb. nov. Basionym: *Grevillea ramosissima* Meisn., *Prodr. [A. P. de Candolle]* 14: 388. 1856.
- Hakea rara** (Olde & Marriott) Christenh. & Byng, comb. nov. Basionym: *Grevillea rara* Olde & Marriott, *Nuytsia* 9: 244. 1993.
- Hakea raybrownii** (Olde & Marriott) Christenh. & Byng, comb. nov. Basionym: *Grevillea raybrownii* Olde & Marriott, *Telopea* 5: 774. 1994.
- Hakea recedens** (Olde & Marriott) Christenh. & Byng, comb. & stat. nov. Basionym: *Grevillea haplantha* subsp. *recedens* Olde & Marriott, *Nuytsia* 9: 290. 1993.
- Hakea refracta** (R.Br.) Christenh. & Byng, comb. nov. Basionym: *Grevillea refracta* R.Br., *Trans. Linn. Soc. London, Bot.* 10: 176. 1810.
- Hakea remota** (Olde & Marriott) Christenh. & Byng, comb. & stat. nov. Basionym: *Grevillea magnifica* subsp. *remota* Olde & Marriott, *Grevillea Book* 1: 179. 1994.
- Hakea renwickiana** (F.Muell.) Christenh. & Byng, comb. nov. Basionym: *Grevillea renwickiana* F.Muell., *Proc. Linn. Soc. New South Wales, Ser. 2*, 1: 1105. 1887.
- Hakea repens** (F.Muell. ex Meisn.) Christenh. & Byng, comb. nov. Basionym: *Grevillea repens* F.Muell. ex Meisn., *Linnaea* 26: 355. 1854.
- Hakea reptans** (Makinson) Christenh. & Byng, comb. nov. Basionym: *Grevillea reptans* Makinson, *Fl. Australia* 17A: 500. 2000.
- Hakea rhizomatosa** (Olde & Marriott) Christenh. & Byng, comb. nov. Basionym: *Grevillea rhizomatosa* Olde & Marriott, *Telopea* 5: 724. 1994.
- Hakea rhyolitica** (Makinson) Christenh. & Byng, comb. nov. Basionym: *Grevillea rhyolitica* Makinson, *Telopea* 7: 134. 1997.
- Hakea riparia** (R.Br.) Christenh. & Byng, comb. nov. Basionym: *Grevillea riparia* R.Br., *Trans. Linn. Soc. London, Bot.* 10: 170. 1810.
- Hakea ripicola** (A.S.George) Christenh. & Byng, comb. nov. Basionym: *Grevillea ripicola* A.S.George, *Nuytsia* 1: 373. 1974.
- Hakea rivularis** (McGill.) Christenh. & Byng, comb. nov. Basionym: *Grevillea rivularis* McGill., *Telopea* 1: 23. 1975.
- Hakea robusta** (A.Cunn. ex R.Br.) Christenh. & M.W.Chase, comb. nov. Basionym: *Grevillea robusta* A.Cunn. ex R.Br., *Prodr. Fl. Nov. Holl.*, Suppl. 1: 24. 1830. (Figure 11D)
- Hakea rogersiana** (C.A.Gardner) Christenh. & Byng, comb. nov. Basionym: *Grevillea rogersiana* C.A.Gardner, *J. Roy. Soc. Western Australia* 47: 56. 1964.
- Hakea rosea** Christenh. & M.W.Chase, nom. nov. Replaced synonym: *Grevillea petrophiloides* Meisn., *Pl. Preiss. (Lehmann)* 2: 257. 1848, not: *Hakea petrophiloides* Sweet. Etymology: This species, called 'pink pokers', has pink flowers, hence the name. (Figure 11E)
- Hakea rosieri** (McGill.) Christenh. & Byng, comb. nov. Basionym: *Grevillea rosieri* McGill., *New Names Grevillea*: 13. 1986.
- Hakea rosmarinifolia** (A.Cunn.) Christenh. & Byng, comb. nov. Basionym: *Grevillea rosmarinifolia* A.Cunn., *Geogr. Mem. New South Wales (Field)*: 328. 1825.
- Hakea roycei** (McGill.) Christenh. & Byng, comb. nov. Basionym: *Grevillea roycei* McGill., *New Names Grevillea*: 13. 1986.
- Hakea rubicunda** (S.Moore) Christenh. & Byng, comb. nov. Basionym: *Grevillea rubicunda* S.Moore, *J. Linn. Soc., Bot.* 45: 210. 1920.
- Hakea rubiginosa** (Brongn. & Gris) Christenh. & Byng, comb. nov. Basionym: *Grevillea rubiginosa* Brongn. & Gris, *Bull. Soc. Bot. France* 12: 40. 1865.
- Hakea rubra** Christenh. & M.W.Chase, nom. nov. Replaced synonym: *Grevillea sulcata* CAGardner ex Olde & Marriott, *Grevillea Book* 1: 183. 1994, not: *Hakea sulcata* R.Br. Etymology: This is one of the species with red flowers, hence the name.
- Hakea rufid** (Meisn.) Christenh. & Byng, comb. nov. Basionym: *Grevillea rufid* Meisn., *Hooker's J. Bot. Kew Gard. Misc.* 7: 73. 1855.
- Hakea rufa** (Warb.) Christenh. & Byng, comb. nov. Basionym: *Finschia rufa* Warb., *Bot. Jahrb. Syst.* 13: 297. 1891. Synonym: *Finschia carrii* (Sleumer) C.T.White
- Hakea saccata** (Benth.) Christenh. & Byng, comb. nov. Basionym: *Grevillea saccata* Benth., *Fl. Austral.* 5: 450. 1870. (Figure 11F)
- Hakea sarissa** (S.Moore) Christenh. & Byng, comb. nov. Basionym: *Grevillea sarissa* S.Moore, *J. Linn. Soc., Bot.* 34: 222. 1899.
- Hakea saxatilis** (McGill.) Christenh. & Byng, comb. nov.

**& stat. nov.** Basionym: *Grevillea pauciflora* subsp. *saxatilis* McGill., *New Names Grevillea* : 1. 1986.

**Hakea saxicola** (S.J.Dillon) Christenh. & Byng, **comb. nov.** Basionym: *Grevillea saxicola* S.J.Dillon, *Nuytsia* 24: 104. 2014.

**Hakea scabra** (Meisn.) Christenh. & Byng, **comb. nov.** Basionym: *Grevillea scabra* Meisn., *Pl. Preiss. (Lehmann)* 1: 541. 1845, in *adnot.*

**Hakea scabrida** (C.A.Gardner) Christenh. & Byng, **comb. nov.** Basionym: *Grevillea scabrida* C.A.Gardner, *J. Roy. Soc. Western Australia* 22: 120. 1936.

**Hakea scapigera** (A.S.George) Christenh. & Byng, **comb. nov.** Basionym: *Grevillea scapigera* A.S.George, *Nuytsia* 1: 374. 1974.

**Hakea scorTechinii** (F.Muell. ex Scort.) Christenh. & Byng, **comb. & stat. nov.** Basionym: *Grevillea ilicifolia* var. *scorTechinii* F.Muell. ex Scort., *Proc. Linn. Soc. New South Wales* 8: 174. 1883.

**Hakea scottensis** (Keighery) Christenh. & Byng, **nom. nov.** Replaced synonym: *Grevillea brachystylis* subsp. *australis* Keighery, *Nuytsia* 7: 128. 1990, not: *Hakea australis* (R.Br.) Christenh. & Byng. Etymology: The type was collected in Scott National Park.

**Hakea secunda** (McGill.) Christenh. & Byng, **comb. nov.** Basionym: *Grevillea secunda* McGill., *New Names Grevillea*: 14. 1986.

**Hakea seminuda** Christenh. & Byng, **nom. nov.** Replaced synonym: *Grevillea amplexans* subsp. *semivestita* Makinson, *Fl. Australia* 17A: 505. 2000, not *Hakea semivestita* (Makinson) Christenh. & Byng. Etymology: The epithet means half naked, which is effectively the same as *semivestita*, half clothed.

**Hakea semivestita** (Makinson) Christenh. & Byng, **comb. & stat. nov.** Basionym: *Grevillea rhyolitica* subsp. *semivestita* Makinson, *Telopea* 7: 137. 1997.

**Hakea ×semperflorens** (F.E.Briggs ex Mulligan) Christenh. & Byng, **comb. nov.** Basionym: *Grevillea ×semperflorens* F.E.Briggs ex Mulligan, *J. Roy. Hort. Soc., London* 62: 126. 1937 (= *H. thelemanniana* × *H. juniperina*).

**Hakea senegaloides** Christenh. & Byng, **nom. nov.** Replaced synonym: *Grevillea acacioides* C.Gardner ex McGill., *New Names Grevillea*: 1. 1986, not: *Hakea acacioides* Domin. Etymology: Named for the Fabaceae genus *Senegalalia*, a segregate of *Acacia*.

**Hakea sessilis** (C.T.White & W.D.Francis) Christenh. & Byng, **comb. nov.** Basionym: *Grevillea sessilis* C.T.White & W.D.Francis, *Proc. Roy. Soc. Queensland* 37: 165. 1926.

**Hakea shireessii** (Blakely) Christenh. & Byng, **comb. nov.** Basionym: *Grevillea shireessii* Blakely, *Proc. Linn. Soc. New South Wales* 50: 383. 1925.

**Hakea shuttleworthiana** (Meisn.) Christenh. & Byng,

**comb. nov.** Basionym: *Grevillea shuttleworthiana* Meisn., *Pl. Preiss. (Lehmann)* 2: 258. 1848.

**Hakea singuliflora** (F.Muell.) Christenh. & Byng, **comb. nov.** Basionym: *Grevillea singuliflora* F.Muell., *Fragm. Phytopogr. Austral.* 6: 92. 1867.

**Hakea sparsiflora** (F.Muell.) Christenh. & Byng, **comb. nov.** Basionym: *Grevillea sparsiflora* F.Muell., *Fragm. Phytopogr. Austral.* 6: 206. 1868.

**Hakea speciosa** (Knight) Christenh. & Byng, **comb. nov.** Basionym: *Lysanthe speciosa* Knight, *Cult. Prot.* 118. 1809.

**Hakea sphacelata** (R.Br.) Christenh. & Byng, **comb. nov.** Basionym: *Grevillea sphacelata* R.Br., *Trans. Linn. Soc. London, Bot.* 10: 174. 1810.

**Hakea spinigera** Christenh. & Byng, **nom. nov.** Replaced synonym: *Grevillea halmaturina* Tate subsp. *laevis* Makinson, *Fl. Australia* 17A: 501. 2000, not: *Hakea levis* (Olde & Marriott) Christenh. & Byng. Etymology: This species has spiny leaves, hence its name.

**Hakea spinosa** (McGill.) Christenh. & Byng, **comb. nov.** Basionym: *Grevillea spinosa* McGill., *New Names Grevillea*: 14. 1986.

**Hakea spinosissima** (McGill.) Christenh. & Byng, **comb. nov.** Basionym: *Grevillea spinosissima* McGill., *New Names Grevillea*: 14. 1986.

**Hakea squiresiae** (Olde & Marriott) Christenh. & Byng, **comb. nov.** Basionym: *Grevillea squiresiae* Olde & Marriott, *Nuytsia* 15: 96. 2002, as 'squiresae'.

**Hakea stajsicina** Christenh. & M.W.Chase, **nom. nov.** Replaced synonym: *Grevillea curvirostra* McGill. subsp. *incurva* Olde & Marriott, *Nuytsia* 9: 243. 1993, not: *Hakea incurva* (Diels) Christenh. & Byng. Etymology: This species is named for Val Stajsic, for his contributions to the knowledge of Australian Proteaceae.

**Hakea steiglitziana** (N.A.Wakef.) Christenh. & Byng, **comb. nov.** Basionym: *Grevillea steiglitziana* N.A.Wakef., *Victorian Naturalist* 73: 74. 1956.

**Hakea stenobotrya** (F.Muell.) Christenh. & Byng, **comb. nov.** Basionym: *Grevillea stenobotrya* F.Muell., *Fragm. Phytopogr. Austral.* 9: 3. 1875.

**Hakea stenogyne** (Benth.) Christenh. & Byng, **comb. & stat. nov.** Basionym: *Grevillea vestita* var. *stenogyne* Benth., *Fl. Austral.* 5: 488. 1870.

**Hakea stenomera** (F.Muell.) Christenh. & Byng, **comb. nov.** Basionym: *Grevillea stenomera* F.Muell., *Fragm. Phytopogr. Austral.* 4: 85. 1864.

**Hakea stenostachya** (C.A.Gardner) Christenh. & Byng, **comb. nov.** Basionym: *Grevillea stenostachya* C.A.Gardner, *J. Roy. Soc. Western Australia* 22: 122. 1936.

**Hakea striata** (R.Br.) Christenh. & Byng, **comb. nov.** Basionym: *Grevillea striata* R.Br., *Trans. Linn. Soc.*

- London, Bot. 10: 177. 1810.
- Hakea subterlineata** (Makinson) Christenh. & Byng, comb. nov. Basionym: *Grevillea subterlineata* Makinson in McGill., *Grevillea, Proteac.: taxon. rev.*: 443. 1993.
- Hakea subtiliflora** (McGill.) Christenh. & Byng, comb. nov. Basionym: *Grevillea subtiliflora* McGill., *New Names Grevillea*: 14. 1986.
- Hakea superba** (Olde & Marriott) Christenh. & Byng, comb. nov. Basionym: *Grevillea superba* Olde & Marriott, *Nuytsia* 9: 298. 1993.
- Hakea supplicans** (Makinson) Christenh. & Byng, comb. & stat. nov. Basionym: *Grevillea parviflora* subsp. *supplicans* Makinson, *Fl. Australia* 17A: 501. 200.
- Hakea synapheae** (R.Br.) Christenh. & Byng, comb. nov. Basionym: *Grevillea synapheae* R.Br., *Prodr. Fl. Nov. Holl.*, Suppl. 1: 23. 1830.
- Hakea telfordii** (Makinson) Christenh. & Byng, comb. & stat. nov. Basionym: *Grevillea decora* subsp. *telfordii* Makinson, *Fl. Australia* 17A: 494. 2000.
- Hakea temulenta** (Olde & Marriott) Christenh. & Byng, comb. & stat. nov. Basionym: *Grevillea juncifolia* subsp. *temulenta* Olde & Marriott, *Grevillea Book* 1: 185. 1994.
- Hakea tenuiloba** (C.A.Gardner) Christenh. & Byng, comb. nov. Basionym: *Grevillea tenuiloba* C.A.Gardner, *J. Roy. Soc. Western Australia* 19: 81. 1934.
- Hakea tetragonaloba** (Meisn.) Christenh. & Byng, comb. nov. Basionym: *Grevillea tetragonaloba* Meisn., *Prodr. [A. P. de Candolle]* 14: 374. 1856.
- Hakea tetrapleura** (McGill.) Christenh. & Byng, comb. nov. Basionym: *Grevillea tetrapleura* McGill., *New Names Grevillea*: 15. 1986.
- Hakea thelemanniana** (Hügel ex Endl.) Christenh. & Byng, comb. nov. Basionym: *Grevillea thelemanniana* Hügel ex Endl., *Nov. Stirp. Dec.* 1: 6. 1839.
- Hakea thyrsoides** (Meisn.) Christenh. & Byng, comb. nov. Basionym: *Grevillea thyrsoides* Meisn., *Hooker's J. Bot. Kew Gard. Misc.* 7: 77. 1855.
- Hakea toodyay** Christenh. & M.W.Chase, nom. nov. Replaced synonym: *Grevillea candolleana* Meisn., *Pl. Preiss. (Lehmann)* 1: 541. 1845, not: *Hakea candolleana* Meisn. Etymology: This species is known as 'toodyay grevillea', hence the choice of epithet.
- Hakea trachytheca** (F.Muell.) Christenh. & Byng, comb. nov. Basionym: *Grevillea trachytheca* F.Muell., *Fragm. Phytogr. Austral.* 6: 207. 1868.
- Hakea treueriana** (F.Muell.) Christenh. & Byng, comb. nov. Basionym: *Grevillea treueriana* F.Muell., *Fragm.*
- Phytogr. Austral.* 9: 123. 1875.
- Hakea trifida** (R.Br.) Christenh. & Byng, comb. nov. Basionym: *Anadenia trifida* R.Br. *Trans. Linn. Soc. London, Bot.* 10: 167. 1810.
- Hakea triloba** (Meisn.) Christenh. & Byng, comb. nov. Basionym: *Grevillea triloba* Meisn., *Hooker's J. Bot. Kew Gard. Misc.* 7: 74. 1855.
- Hakea tripartita** (Meisn.) Christenh. & Byng, comb. nov. Basionym: *Grevillea tripartita* Meisn., *Prodr. [A. P. de Candolle]* 14: 373. 1856.
- Hakea triternata** (R.Br.) Christenh. & Byng, comb. nov. Basionym: *Grevillea triternata* R.Br., *Prodr. Fl. Nov. Holl.*, Suppl. 1: 21. 1830.
- Hakea umbellulata** (J.M.Black) Christenh. & Byng, comb. nov. Basionym: *Grevillea umbellulata* J.M.Black, *Trans. Roy. Soc. South Australia* 71: 21. 1947.
- Hakea uncinulata** (Diels & E.Pritz.) Christenh. & Byng, comb. nov. Basionym: *Grevillea uncinulata* Diels & E.Pritz., *Bot. Jahrb. Syst.* 35: 152. 1904.
- Hakea uniformis** (McGill.) Christenh. & Byng, comb. & stat. nov. Basionym: *Grevillea acrobotrys* subsp. *uniformis* McGill., *New Names Grevillea*: 1. 1986.
- Hakea variifolia** (C.A.Gardner & A.S.George) Christenh. & Byng, comb. nov. Basionym: *Grevillea variifolia* C.A.Gardner & A.S.George, A.S., *J. Roy. Soc. Western Australia* 46: 129. 1963.
- Hakea velutinella** (McGill.) Christenh. & Byng, comb. nov. Basionym: *Grevillea velutinella* McGill., *New Names Grevillea*: 16. 1986.
- Hakea venusta** (R.Br.) Christenh. & Byng, comb. nov. Basionym: *Grevillea venusta* R.Br., *Trans. Linn. Soc. London* 10: 175. 1811.
- Hakea versicolor** (McGill.) Christenh. & Byng, comb. nov. Basionym: *Grevillea versicolor* McGill., *New Names Grevillea*: 16. 1986.
- Hakea vestita** (Endl.) Christenh. & Byng, comb. nov. Basionym: *Manglesia vestita* Endl., *Nov. Stirp. Dec.* 4: 26. 1839.
- Hakea victoriae** (F.Muell.) Christenh. & Byng, comb. nov. Basionym: *Grevillea victoriae* F.Muell., *Trans. Proc. Phil. Soc. Victoria* 1: 107. 1855, not: *Hakea victoria* J.Drumm.
- Hakea viridiflava** (Makinson) Christenh. & Byng, comb. nov. Basionym: *Grevillea viridiflava* Makinson, *Fl. Australia* 17A: 500. 2000.
- Hakea westoniana** Christenh. & M.W.Chase, nom. nov. Replaced synonym: *Grevillea virgata* Makinson, *Fl. Australia* 17A: 500. 2000, not: *Hakea virgata* R.Br. Etymology: This species is named in honour of Peter Weston, for his contribution to Proteaceae systematics and taxonomy.
- Hakea whiteana** (McGill.) Christenh. & Byng, comb. nov. Basionym: *Grevillea whiteana* McGill., *New*

- Names Grevillea*: 16. 1986.
- Hakea wickhamii** (Meisn.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea wickhamii* Meisn., *Prod. [A. P. de Candolle]* 14: 380. 1856.
- Hakea wilkinsonii** (Makinson) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea wilkinsonii* Makinson, *Telopea* 5: 351. 1993.
- Hakea willisii** (R.V.Sm. & McGill.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea willisii* R.V.Sm. & McGill., *Muelleria* 3: 102. 1975.
- Hakea wilsonii** (A.Cunn.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea wilsonii* A.Cunn. in Wilson, *Narr. Voy. Round World*: 273. 1835.
- Hakea wiradjuri** (Makinson) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea wiradjuri* Makinson, *Fl. Australia* 17A: 501. 2000.
- Hakea wirregaensis** (Downing) Christenh. & Byng, *comb. & stat. nov.* Basionym: *Grevillea angustiloba* (F.Muell.) Downing subsp. *wirregaensis* Downing, *Austral. Syst. Bot.* 17: 340. 2004.
- Hakea wittweri** (McGill.) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea wittweri* McGill., *New Names Grevillea*: 16. 1986.
- Hakea xerophylla** Christenh. & M.W.Chase, *nom. nov.* Basionym: *Grevillea teretifolia* Meisn., *Pl. Preiss. (Lehmann)* 2: 255. 1848, not: *Hakea teretifolia* (Salisb.) Britten. Etymology: Referring to the xeric leaves of this species.
- Hakea xiphoidaea** (Olde & Marriott) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea xiphoidaea* Olde & Marriott, *Grevillea Book* 1: 175. 1994.
- Hakea yorkrakinensis** (C.A.Gardner) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea yorkrakinensis* C.A.Gardner, *J. Proc. Roy. Soc. Western Australia* 9: 34. 1923.
- Hakea zygoloba** (Olde & Marriott) Christenh. & Byng, *comb. nov.* Basionym: *Grevillea zygoloba* Olde & Marriott, *Grevillea Book* 1: 180. 1994.
- 134. Haloragaceae.** Reference: Chen *et al.* (2014).
- Note:** *Glischrocaryon* Endl. is embedded in *Haloragodendron* Orchard, together forming a clade sister to the rest of Haloragaceae. As *Glischrocaryon* has nomenclatural priority, *Haloragodendron* is hereby transferred into that genus.
- Glischrocaryon baeuerlenii** (F.Muell.) Christenh. & Byng, *comb. nov.* Basionym: *Haloragis baeuerlenii* F.Muell., *Bot. Centralbl.* 8: 147. 1887.
- Glischrocaryon gibsonii** (Peter G. Wilson & M.L.Moody) Christenh. & Byng, *comb. nov.* Basionym: *Haloragodendron gibsonii* Peter G.Wilson & M.L.Moody, *Telopea* 11: 142. 2006.
- Glischrocaryon glandulosum** (Orchard) Christenh. & Byng, *comb. nov.* Basionym: *Haloragodendron glandulosum* Orchard, *Bull. Auckland Inst. Mus.* 10: 148. 1975.
- Glischrocaryon lucasii** (Maid. & Betche) Christenh. & Byng, *comb. nov.* Basionym: *Haloragis lucasii* Maid. & Betche, *Proc. Linnean Soc. New South Wales* 34: 358. 1909.
- Glischrocaryon monospermum** (F.Muell.) Christenh. & Byng, *comb. nov.* Basionym: *Haloragis monosperma* F.Muell., *Proc. Linnean Soc. New South Wales* 10: 197. 1885.
- Glischrocaryon racemosum** (Labill.) Christenh. & Byng, *comb. nov.* Basionym: *Haloragis racemosa* Labill., *Nov. Holl. Pl.* 1: 100. 1805.
- 138. Zygophyllaceae.** References: Sheahan & Chase (2000), Beier *et al.* (2003).
- Note:** *Augea* Thunb., *Fagonia* L. and *Tetraena* Maxim. are embedded in *Zygophyllum* L.. We prefer to include all in a single genus, because morphologically it would be difficult to find characters for the new genera that would otherwise be required. Additionally, as more species are sequenced it is likely that these new genera will be found to be polyphyletic and will need to be split again without morphological support. Both *Zygophyllum* and *Fagonia* are both Linnean names but we chose *Zygophyllum* over *Fagonia*, because the first is a much larger genus and would require a greater degree of nomenclatural change. *Izozogia* G.Navarro shares all characters with *Guaiacum* L. and is not separate from that genus. Some species of *Bulnesia* Gay are better placed in *Plectrocarpa* Gillies ex Hook. & Arn., because *Bulnesia* would otherwise be biphylectic.
- Guaiacum nellii** (Navarro) Christenh. & Byng, *comb. nov.* Basionym: *Izozogia nellii* G.Navarro, *Novon* 7: 1. 1997.
- Plectrocarpa arborea** (Jacq.) Christenh. & Byng, *comb. nov.* Basionym: *Zygophyllum arboreum* Jacq., *Enum. Syst. Pl.* 20. 1760.
- Plectrocarpa bonariensis** (Groseb.) Christenh. & Byng, *comb. nov.* Basionym: *Bulnesia bonariensis* Griseb., *Abh. Königl. Gesell. Wiss. Göttingen* 19: 105. 1874.
- Plectrocarpa carapo** (Killip & Dugand) Christenh. & Byng, *comb. nov.* Basionym: *Bulnesia carapo* Killip & Dugand, *Caldasia* 3: 35. 1944.
- Plectrocarpa sarmientoi** (Lorentz ex Griseb.) Christenh. & Byng, *comb. nov.* Basionym: *Bulnesia sarmientoi* Lorentz ex Griseb., *Abh. Königl. Gesell. Wiss. Göttingen* 24: 75. 1879, as 'Sarmienti'.
- Zygophyllum acerosum** (Boiss.) Christenh. & Byng, *comb. nov.* Basionym: *Fagonia acerosa* Boiss., *Diagn. Pl. Orient.* 8: 124. 1849.
- Zygophyllum arabicum** (L.) Christenh. & Byng, *comb.*

- nov.** Basionym: *Fagonia arabica* L., Sp. Pl.: 386. 1753.
- Zygophyllum augea** Christenh. & Byng, nom. nov.  
Replaced synonym: *Augea capensis* Thunb., Prod. Pl. Cap. 1[viii]: 80. 1794, not: *Zygophyllum capense* Lam. Etymology: Named for the former genus *Augea*, a synonym of *Zygophyllum*.
- Zygophyllum bruguieri** (DC.) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia bruguieri* DC., Prod. 1: 704. 1824.
- Zygophyllum californicum** (Benth.) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia californica* Benth., Bot. Voy. Sulphur: 10. 1844.
- Zygophyllum charoides** (Chiov.) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia charoides* Chiov., Fl. Somala 1: 112. 1929.
- Zygophyllum chilense** (Hook. & Arn.) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia chilensis* Hook. & Arn., Bot. Misc. 3: 165. 1833.
- Zygophyllum creticum** (L.) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia cretica* L., Sp. Pl.: 386. 1753.
- Zygophyllum densispinum** (Beier & Thulin) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia densispina* Beier & Thulin, Syst. Biodivers. 3: 235. 2005.
- Zygophyllum densum** (I.M.Johnst.) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia densa* I.M.Johnst., Proc. Calif. Acad. Sci. IV, 12: 1052. 1924.
- Zygophyllum glutinosum** (Delile) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia glutinosa* Delile, Descr. Egypte, Hist. Nat.: 230. 1813.
- Zygophyllum gypsophilum** (Beier & Thulin) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia gypsophila* Beier & Thulin, Nordic J. Bot. 21: 452. 2001 publ. 2002.
- Zygophyllum hadramauticum** (Beier & Thulin) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia hadramautica* Beier & Thulin, Syst. Biodivers. 3: 238. 2005.
- Zygophyllum harpago** (Emb. & Maire) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia harpago* Emb. & Maire, Bull. Soc. Hist. Nat. Afrique N. 22: 284. 1931.
- Zygophyllum indicum** (Burm.f.) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia indica* Burm.f., Fl. Indica: 102. 1768.
- Zygophyllum laeve** (Standl.) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia laevis* Standl., Proc. Biol. Soc. Wash. 24: 249. 1911.
- Zygophyllum lahovarii** (Volkens & Schweinf.) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia lahovarii* Volkens & Schweinf., Liste Pl. Somalis: 204. 1897.
- Zygophyllum latistipulatum** (Beier & Thulin) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia latistipulata* Beier & Thulin, Syst. Biodivers. 3: 243. 2005.
- Zygophyllum luntii** (Baker) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia luntii* Baker, Bull. Misc. Inform. Kew 1894: 330. 1894.
- Zygophyllum mahranum** (Beier) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia mahran* Beier, Nordic J. Bot. 21: 451. 2001 publ. 2002.
- Zygophyllum mayanum** Christenh. & Byng, nom. nov.  
Basionym: *Fagonia mayana* Schlehd., Bot. Zeitung (Berlin) 9: 844. 1851. Replaced synonym: *Fagonia latifolia* Delile, Descr. Egypte, Hist. Nat.: 230. 1813, not: *Zygophyllum latifolium* Schrenk.
- Zygophyllum minutistipulum** (Engl.) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia minutistipula* Engl., Bot. Jahrb. Syst. 10: 33. 1889.
- Zygophyllum molle** (Delile) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia mollis* Delile, Descr. Egypte, Hist. Nat.: 220. 1813.
- Zygophyllum mongolicum** (Maxim.) Christenh. & Byng, comb. nov.  
Basionym: *Tetraena mongolica* Maxim., Enum. Pl. Mongolia: 129. 1889.
- Zygophyllum olivieri** (DC.) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia olivieri* DC., Prod. 1: 704. 1824.
- Zygophyllum orientale** (C.Presl) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia orientalis* C.Presl, Delic. Prag.: 23. 1822.
- Zygophyllum pachyacanthum** (Rydb.) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia pachyacantha* Rydb., N. Amer. Fl. 25: 105. 1910.
- Zygophyllum palmeri** (Vasey & Rose) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia palmeri* Vasey & Rose, Contr. U.S. Natl. Herb. 1: 82. 1890.
- Zygophyllum paulayanum** (J.Wagner & Vierh.) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia paulayana* J.Wagner & Vierh., Oesterr. Bot. Z. 54: 34. 1904.
- Zygophyllum scabrum** (Forssk.) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia scabra* Forssk., Fl. Aegypt.-Arab.: 88. 1775.
- Zygophyllum scoparium** (Brandegee) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia scoparia* Brandegee, Univ. Calif. Publ. Bot. 4: 181. 1911.
- Zygophyllum spinosissimum** (Blatt. & Hallb.) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia spinosissima* Blatt. & Hallb., J. Indian Bot. 1: 89. 1919.
- Zygophyllum subinerme** (Boiss.) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia subinermis* Boiss., Diagn. Pl. Orient. 1: 62. 1843.
- Zygophyllum villosum** (D.M.Porter) Christenh. & Byng, comb. nov.  
Basionym: *Fagonia villosa* D.M.Porter, Contr. Gray Herb. 192: 120. 1963.
- Zygophyllum zilloides** (Humbert) Christenh. & Byng,

**comb. nov.** Basionym: *Fagonia zilloides* Humbert, *Bull. Soc. Hist. Nat. Afrique N.* 18: 144. 1927.

**142. Polypalaceae.** Reference: Pastore et al. (2017).

**Note:** *Balgoya* Morat & Meijden is embedded in *Moutabea* Aubl. and is hereby transferred.

***Moutabea pacifica* (Morat & Meijden) Byng & Christenh., comb. nov.** Basionym: *Balgoya pacifica* Morat & Meijden, *Bull. Mus. Natl. Hist. Nat.*, B, *Adansonia* Sér. 4, 13: 3. 1991.

**143. Rosaceae.** Reference: Li et al. (2012).

**Note:** *Sorbus* L. is polyphyletic and even though several solutions have been suggested, it complicates the taxonomy, with many unfamiliar genera and with numerous complex intergeneric hybrids. To show that these are closely related taxa, *Pyrus* L. is hereby expanded to include most of Maleae, e.g. the genera *Aronia* Medik., *Chaenomeles* Lindl., *Chamaemeles* Lindl., *Chamaemespilus* Medik., *Cotoneaster* Medik., *Cydonia* Mill., *Docynia* Decne., *Eriobotrya* Lindl., *Heteromeles* M.Roem., *Malus* Mill., *Micromeles* Decne., *Osteomeles* Lindl., *Photinia* Lindl., *Pourthiae* Decne., *Pseudocydonia* (C.K.Schneid.) C.K.Schneid., *Rhaphiolepis* Lindl., *Sorbus* s.l. and *Stranvaesia* Lindl. returning it to the Linnaean concept of the genus *Pyrus*.

***Pyrus ×abscondita* (Kovanda) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus ×abscondita* Kovanda, *Verh. Zool.-Bot. Ges. Österreich* 133: 339. 1996. (= *P. aucuparia* × *P. danubialis*).

***Pyrus acuminata* (Lindl.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster acuminatus* Lindl., *Trans. Linn. Soc. London* 13: 101. 1822.

***Pyrus acutifolia* (Turcz.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster acutifolius* Turcz., *Bull. Soc. Imp. Naturalistes Moscou* 4: 190. 1832.

***Pyrus adamii* (Kárpáti) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus adamii* Kárpáti, *Hung. Acta Biol.* 1: 112. 1949, as 'adamii'.

***Pyrus adeana* (N.Mey.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus adeana* N.Mey., *Ber. Bayer. Bot. Ges. Sonderband* : 139. 2005.

***Pyrus admonitor* (M.Proctor) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus admonitor* M.Proctor, *Watsonia* 27: 207. 2009.

***Pyrus adpressa* (Bois) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster adpressus* Bois, *Bull. Soc. Bot. France* 51: 149. 1904.

***Pyrus affinis* (Lindl.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster affinis* Lindl., *Trans. Linn. Soc. London* 13: 101. 1822.

***Pyrus afghanica* (G.Klotz) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster afghanicus* G.Klotz,

*Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Kl.* 15: 532. 1966.

***Pyrus ailanthoides* M.F.Fay & Christenh., nom. nov.**

Replaced synonym: *Sorbus hupehensis* C.K.Schneid., *Bull. Herb. Boissier*, sér. 2, 6: 316. 1906, not: *Pyrus hupehensis* Pamp. Note: *Pyrus hupehensis* (C.K.Schneid.) Bean is an illegitimate homonym. Etymology: The foliage of this species resembles *Ailanthes* (Simaroubaceae), hence the name.

***Pyrus aitchisonii* (C.K.Schneid.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster aitchisonii* C.K.Schneid., *Illustr. Handb. Laubholzk.* 1: 749. 1906.

***Pyrus alabaster* M.F.Fay & Christenh., nom. nov.**

Replaced synonym: *Eriobotrya wardii* C.E.C.Fisch., *Bull. Misc. Inform. Kew* 1929(6): 205. 1929, not: *Pyrus wardii* (W.W.Sm.) M.F.Fay & Christenh. Etymology: This species have flower petals that are fragile and white, like alabaster, hence the name.

***Pyrus alashanensis* (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster alashanensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide*: 307. 2009.

***Pyrus alatavica* (M.Popov) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster alatavicus* M.Popov, *Bull. Soc. Imp. Naturalistes Moscou* 47: 86. 1938.

***Pyrus alaunica* (Goltsin) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster alaunicus* Goltsin, *Novosti Sist. Vyssh. Rast.* 1964: 145. 1964.

***Pyrus albensis* (M.Lepší, K.Boublík, P.Lepší & P.Vít) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus albensis* M.Lepší, K.Boublík, P.Lepší & P.Vít, *Preslia* 81: 76. 2009.

***Pyrus albokermesina* (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster albokermesinus* J.Fryer & B.Hylmö, *New Plantsman* 5: 132. 1998.

***Pyrus albopilososa* (T.T.Yu & L.T.Lu) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus albopilosa* T.T.Yu & L.T.Lu, *Acta Phytotax. Sin.* 18: 495. 1980.

***Pyrus albovii* (Zinserl.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus albovii* Zinserl., *Fl. URSS* 9: 390. 1939.

***Pyrus algoviensis* (N.Mey.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus algoviensis* N.Mey., *Ber. Bayer. Bot. Ges.* 86: 228. 2016.

***Pyrus allochroa* (Pojark.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster allochrous* Pojark., *Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk S.S.S.R.* 21: 171. 1961. Replaced synonym: *Cotoneaster fontanesii* Spach var. *songoricus* Regel, *Trudy Imp. S.-Peterburgsk. Bot. Sada* 2: 313. 1873, as 'soongarica', not: *Pyrus songorica* Fisch. ex Juz., and orthographic variant.

***Pyrus alma* M.F.Fay & Christenh., nom. nov.** Replaced

synonym: *Sorbus fedorovii* Zaik., Bot. Zhurn. (Moscow & Leningrad) 59(11): 1605. 1974, not: *Pyrus fedorovii* Kuth. Etymology: From the Kazakh word алма, apple.

**Pyrus alnifrons (Kovanda) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus alnifrons* Kovanda, Verh. Zool.-Bot. Ges. Österreich 133: 356. 1996.

**Pyrus altaica (Koehne) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus altaica* Koehne, Repert. Spec. Nov. Regni Veg. 10: 505. 1912.

**Pyrus ×ambigua (Decne.) M.F.Fay & Christenh., comb. nov.** Basionym: *Aria ambigua* Decne., Nouv. Arch. Mus. Hist. Nat. 10: 165. 1874.

**Pyrus amici-petri (Mikoláš) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus amici-petri* Mikoláš, Thaiszia 13: 128. 2004.

**Pyrus amphidoxa (C.K.Schneid.) M.F.Fay & Christenh., comb. nov.** Basionym: *Stranvaesia amphidoxa* C.K.Schneid., Bull. Herb. Boissier Ser. 2, 6: 319. 1906.

**Pyrus anadyrensis (Komarov) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus anadyrensis* Komarov, Bot. Mater. Gerb. Glavn. Bot. Sada R.S.F.S.R. 2: 134. 1921.

**Pyrus anatolii (Teimurov & Taisumov) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster anatolii* Teimurov & Taisumov, Byull. Moskovsk. Obshch. Isp. Prir., Otd. Biol. 115: 71. 2010.

**Pyrus andersonii (G.N.Jones) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus andersonii* G.N.Jones, Rhodora 47: 220. 1945.

**Pyrus andina M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Crataegus ferruginea* Pers., Syn. Pl. 2: 37. 1806, not: *Pyrus ferruginea* Hook.f. Etymology: This species occurs in the Andes.

**Pyrus andreanszkyana (Kárpáti) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus andreanszkyana* Kárpáti, Agrártud. Egyet. Kert- Szölögazdaság tud. Karának Évk. 1: 34. 1950.

**Pyrus angusta (T.T.Yu ex T.T.Yu & K.C.Kuan) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster salicifolius* Franch. var. *angustus* T.T.Yu ex T.T.Yu & K.C.Kuan, Acta Phytotax. Sin. 8: 219. 1963.

**Pyrus angustissima (Hook.f.) M.F.Fay & Christenh., comb. nov.** Basionym: *Eriobotrya angustissima* Hook.f., Fl. Brit. India 2: 372. 1878.

**Pyrus anlungensis (T.T.Yu) M.F.Fay & Christenh., comb. nov.** Basionym: *Photinia anlungensis* T.T.Yu, Acta Phytotax. Sin. 8: 228. 1963.

**Pyrus antoninae (Juz. ex Orlova) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster antoninae* Juz. ex Orlova, Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk S.S.R. 13: 33. 1950.

**Pyrus aperta (Koehne) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus aperta* Koehne, Pl. Wilson.

(Sargent) 1(3): 465. 1913.

**Pyrus aphrodite M.F.Fay & Christenh., nom. nov.**

Replaced synonym: *Cotoneaster saxatilis* Pojark., Not. Syst. Inst. Bot. Acad. Sci. USSR 8: 7. 1938, not: *Pyrus saxatilis* Schleidl. ex Ledeb. Etymology: Named for Αφροδίτη, Greek goddess of love and beauty. The myth goes that at the marriage of Peleus and Thetis, the goddess of discord, was not invited. She was not amused, so she gave Paris a golden apple inscribed with the word καλλίστῃ (kallistēi, "for the fairest"). Aphrodite, Hera, and Athena all claimed to be the fairest, and thus the rightful owner of the apple.

**Pyrus apiculata (Rehder & E.H.Wilson) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster apiculatus* Rehder & E.H.Wilson, Pl. Wilson. (Sargent) 1: 156. 1912.

**Pyrus arbuscula (G.Klotz) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster arbusculus* G.Klotz, Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe 17: 337. 1968.

**Pyrus arctostaphylos M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Cotoneaster congestus* Baker, Saundar's Ref. Bot. 1: pl. 51. 1869, not: *Pyrus congesta* Rehder. Etymology: This species superficially resembles a species of *Arctostaphylos* (Ericaceae).

**Pyrus argentea (G.Klotz) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster argenteus* G.Klotz, Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Reihe 12: 775. 1963.

**Pyrus arguta (Wall. ex Lindl.) M.F.Fay & Christenh., comb. nov.** Basionym: *Photinia arguta* Wall. ex Lindl., Edwards's Bot. Reg. 23: sub t. 1956. 1837.

**Pyrus armena (Pojark.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster armenus* Pojark., Not. Syst. Inst. Bot. Acad. Sci. USSR 17: 202. 1955.

**Pyrus armeniaca (Hedl.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus armeniaca* Hedl., Kongl. Svenska Vetensk.-Akad. Handl. 35: 69. 1901.

**Pyrus ×arnoldiana (Rehder) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus ×arnoldiana* Rehder, J. Arnold Arbor. 2: 42. 1920. Note: = *Pyrus aucuparia* × *Pyrus discolor*.

**Pyrus aronioides (Rehder) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus aronioides* Rehder, Pl. Wilson. (Sargent) 2(2): 268. 1915.

**Pyrus arvonicolor (P.D.Sell) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus arvonicolor* P.D.Sell in Sell & Murrell, Fl. Gr. Brit. Ireland 2: 522. 2014.

**Pyrus ascendens (Flinck & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster ascendens* Flinck & B.Hylmö, Bot. Not. (Lund) 119:

453. 1966.

**Pyrus asiatica (Nakai) M.F.Fay & Christenh., comb. nov.**

Basionym: *Malus asiatica* Nakai, *Icon. Pl. Koisikav.* 3: 19. 1915.

**Pyrus assadii (Khat.) M.F.Fay & Christenh., comb. nov.**

Basionym: *Cotoneaster assadii*, *Iran. J. Bot.* 4: 116. 1988.

**Pyrus assamensis (G.Klotz) M.F.Fay & Christenh., comb. nov.**

Basionym: *Cotoneaster assamensis* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 21: 996. 1972.

**Pyrus asterope M.F.Fay & Christenh., nom. nov.**

Replaced synonym: *Crataegus integrifolia* Roxb., *Fl. Ind.* 2: 509. 1832, not: *Pyrus integrifolia* (Lindl.) M.F.Fay & Christenh. Etymology: Named for Αστεροπή, a Hesperid nymph. Her name means 'starry faced', but also means 'lightning'.

**Pyrus astrophora (J.Fryer & E.C.Nelson) M.F.Fay & Christenh., comb. nov.**

Basionym: *Cotoneaster astrophorus* J.Fryer & E.C.Nelson, *Glasra* 2: 128. 1995.

**Pyrus ataensis (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.**

Basionym: *Cotoneaster ataensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 307 (221; pl. 130). 2009.

**Pyrus atlantae M.F.Fay & Christenh., nom. nov.**

Replaced synonym: *Photinia lanuginosa* T.T.Yu, *Acta Phytotax. Sin.* 8: 227. 1963, not: *Pyrus lanuginosa* DC. Etymology: Named for Αταλάντη, a virgin huntress, who did not want to get married, but got distracted by three golden apples and lost her race to Hippomanes, whom she then had to marry.

**Pyrus athenae M.F.Fay & Christenh., nom. nov.**

Replaced synonym: *Hiptage cavaleriei* H.Lév., *Repert. Spec. Nov. Regni Veg.* 10: 372. 1912, not: *Pyrus cavaleriei* H.Lév. Etymology: Named for Αθηνᾶ, Greek goddess of wisdom and war. The myth goes that at the marriage of Peleus and Thetis, Eris, the goddess of discord, was not invited. She was not amused, so she gave Paris a golden apple inscribed with the word καλλίστη (kallistē, "for the fairest"). Aphrodite, Hera, and Athena all claimed to be the fairest, and thus the rightful owner of the apple. Note: This was described in *Hiptage Gaertn.* (Malpighiaceae), but later transferred to *Eriobotrya* Lindl. as *E. cavaleriei* (H.Lév.) Rehder.

**Pyrus atlantica (G.Klotz) M.F.Fay & Christenh., comb. nov.**

Basionym: *Cotoneaster atlanticus* G.Klotz, *Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Reihe* 12: 759. 1963.

**Pyrus atrimontis (Bernátová & Májovský) M.F.Fay & Christenh., comb. nov.**

Basionym: *Sorbus atrimontis* Bernátová & Májovský, *Biologia (Bratislava)* 58: 786. 2003.

**Pyrus atroramosa M.F.Fay & Christenh., nom. nov.**

Replaced synonym: *Cotoneaster atropurpureus* Flinck & B.Hylmö, *Watsonia* 18: 311. 1991, not: *Pyrus atropurpurea* (Britton) L.H.Bailey. Etymology: This species has dark coloured branches, hence the name, from Latin *atro*, dark and *ramosus*, branched.

**Pyrus atrosanguinea (T.T.Yu & Tsai) M.F.Fay & Christenh., comb. nov.**

Basionym: *Sorbus atrosanguinea* T.T.Yu & Tsai, *Bull. Fan Mem. Inst. Biol. Bot.* 7: 119. 1936.

**Pyrus atrovinacea (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.**

Basionym: *Cotoneaster atrovinaceus* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 307. 2009.

**Pyrus atrovirens (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.**

Basionym: *Cotoneaster atrovirens* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 307. 2009.

**Pyrus atuntzensis (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.**

Basionym: *Cotoneaster atuntzensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 308. 2009.

**Pyrus aurantiaca (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.**

Basionym: *Cotoneaster aurantiacus* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 308. 2009.

**Pyrus aurelia-aquensis M.F.Fay & Christenh., nom. nov.**

Replaced synonym: *Sorbus badensis* Düll in N.Mey., *Ber. Bayer. Bot. Ges. Sonderband*: 131. 2005, not: *Pyrus badensis* hort. ex K.Koch. Etymology: Named for Baden-Baden in Germany, or Aurelia-Aquensis in Latin.

**Pyrus avalon M.F.Fay & Christenh., nom. nov.**

Replaced synonym: *Eriobotrya lasiogyna* Franch., *Pl. Delavay.* 1: 225. 1890, not: *Pyrus lasiogyna* Koidz. Etymology: from Welsh *Ynys Afallon* or *Ynys Afallach*, meaning 'the island of apple trees' as in 'Avalon' the mythical island featured in the legends of King Arthur.

**Pyrus avonensis (T.C.G.Rich) M.F.Fay & Christenh., comb. nov.**

Basionym: *Sorbus avonensis* T.C.G.Rich, *Watsonia* 27: 370. 2009.

**Pyrus bacillaris (Wall. ex Lindl.) M.F.Fay & Christenh., comb. nov.**

Basionym: *Cotoneaster bacillaris* Wall. ex Lindl., *Edward's Bot. Reg.* 15: t. 1229. 1829.

**Pyrus bakeri (G.Klotz) M.F.Fay & Christenh., comb. nov.**

Basionym: *Cotoneaster bakeri* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 21: 970. 1972. Replaced synonym: *Cotoneaster sanguineus* T.T.Yu, *Bull. Brit. Mus. (Nat. Hist.)*, Bot. 1: 130. 1954, not: *Pyrus sanguinea* Pursh.

**Pyrus bakonyensis (Jáv.) M.F.Fay & Christenh., comb. nov.**

Basionym: *Sorbus franconica* Bornm. f. *bakonyensis* Jáv., *Magyar Bot. Lapok* 25: 87. 1927.

**Pyrus balatonica (Kárpáti) M.F.Fay & Christenh., comb. nov.**

Basionym: *Sorbus balatonica* Kárpáti, Hung.



Figure 12: **Angiosperms (Eudicots).** A, *Pyrus bibas* (Lour.) M.F.Fay & Christenh.; B, *Pyrus lancastriensis* (E.F.Warb.) M.F.Fay & Christenh.; C, *Pyrus mandshurica* (Maxim.) M.F.Fay & Christenh.; D, *Pyrus microphylla* (Wall. ex Lindl.) M.F.Fay & Christenh.; E, *Pyrus morrisonensis* (Hayata) M.F.Fay & Christenh.; and F, *Pyrus photiniphylla* M.F.Fay & Christenh.. All images © Maarten Christenhuzs.

- Acta Biol.* 1: 121. 1949.
- Pyrus baldaccii** (C.K.Schneid.) M.F.Fay & Christenb., *comb. nov.* Basionym: *Sorbus umbellata* (Desf.) Fritsch var. *baldaccii* C.K.Schneid., *Ill. Handb. Laubholz.* 1: 691. 1906.
- Pyrus barabitsii** (C.Németh) M.F.Fay & Christenb., *comb. nov.* Basionym: *Sorbus barabitsii* C.Németh, *Acta Bot. Hung.* 54: 138. 2012.
- Pyrus barrandienica** (P.Vít, M.Lepší & P.Lepší) M.F.Fay & Christenb., *comb. nov.* Basionym: *Sorbus barrandienica* P.Vít, M.Lepší & P.Lepší, *Preslia* 84: 82. 2012.
- Pyrus barthae** (Kárpáti) M.F.Fay & Christenb., *comb. nov.* Basionym: *Sorbus barthae* Kárpáti, *Agrártud. Egyet. Kert- Szölgázdaság*tud. Karának Évk. 1(14): 37. 1950.
- Pyrus beauverdiana** (C.K.Schneid.) M.F.Fay & Christenb., *comb. nov.* Basionym: *Photinia beauverdiana* C.K.Schneid., *Bull. Herb. Boissier Ser. 2*, 6: 319. 1906.
- Pyrus beckii** (C.K.Schneid.) M.F.Fay & Christenb., *comb. nov.* Basionym: *Photinia beckii* C.K.Schneid., *Ill. Handb. Laubholz.* 1: 707. 1906.
- Pyrus beijingensis** M.F.Fay & Christenb., *nom. nov.* Replaced synonym: *Cotoneaster acutifolius* Turcz. f. *pekinensis* Koehne, *Deut. Dendrol.*: 225. 1893, not: *Pyrus pekinensis* (Koehne) Cardot. Etymology: Named for Beijing, the modern name for the capital of China formerly known as Peking.
- Pyrus beimashanensis** (J.Fryer & B.Hylmö) M.F.Fay & Christenb., *comb. nov.* Basionym: *Cotoneaster beimashanensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide*: 308. 2009.
- Pyrus belladonna** M.F.Fay & Christenb., *nom. nov.* Replaced synonym: *Cotoneaster altaicus* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide*: 307. 2009, not: *Pyrus altaica* (Koehne) M.F.Fay & Christenb. Etymology: This species has black fruits that superficially resemble those of deadly nightshade, *Atropa belladonna* (Solanaceae). The name means 'beautiful lady'.
- Pyrus bengalensis** (Roxb.) M.F.Fay & Christenb., *comb. nov.* Basionym: *Mespilus bengalensis* Roxb., *Fl. Ind.* 2: 510. 1832.
- Pyrus benthamiana** (Hance) M.F.Fay & Christenb., *comb. nov.* Basionym: *Photinia benthamiana* Hance, *Ann. Sci. Nat., Bot. sér. 5*, 5: 213. 1866.
- Pyrus berberidifolia** (Rehder & E.H.Wilson) M.F.Fay & Christenb., *comb. nov.* Basionym: *Photinia berberidifolia* Rehder & E.H.Wilson, *Pl. Wilson.* (Sargent) 1(2): 191. 1912.
- Pyrus bergerae** (C.K.Schneid.) M.F.Fay & Christenb., *comb. nov.* Basionym: *Photinia bergerae* C.K.Schneid., *Ill. Handb. Laubholz.* 1: 709. 1906.
- Pyrus bibas** (Lour.) M.F.Fay & Christenb., *comb. nov.* Basionym: *Crataegus bibas* Lour., *Fl. Cochinch.* 1: 319. 1790. Replaced synonym: *Mespilus japonica* Thunb., *Nova Acta Regiae Soc. Sci. Upsal.* 3: 208. 1780; syn.: *Eriobotrya japonica* (Thunb.) Lindl., not: *Pyrus japonica* Thunb. (Figure 12A)
- Pyrus bisramianus** (G.Klotz) M.F.Fay & Christenb., *comb. nov.* Basionym: *Cotoneaster bisramianus* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 21: 994. 1972, as 'bis-ramianus'.
- Pyrus bissetii** (McAll.) M.F.Fay & Christenb., *comb. nov.* Basionym: *Sorbus bissetii* McAll., *Gen. Sorbus*: 234. 2005.
- Pyrus blinii** (H.Lév.) M.F.Fay & Christenb., *comb. nov.* Basionym: *Cotoneaster blinii* H.Lév., *Cat. Pl. Yun-Nan*: 229. 1917.
- Pyrus bodajkensis** (Barabits) M.F.Fay & Christenb., *comb. nov.* Basionym: *Sorbus bodajkensis* Barabits, *Tilia* 13: 19. 2007.
- Pyrus bohemica** (Kovanda) M.F.Fay & Christenb., *comb. nov.* Basionym: *Sorbus bohemica* Kovanda, *Acta Univ. Carol., Biol.* 1961: 77. 1961.
- Pyrus boisiana** (G.Klotz) M.F.Fay & Christenb., *comb. nov.* Basionym: *Cotoneaster boisianus* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 21: 987. 1972.
- Pyrus boissieri** (C.K.Schneid.) M.F.Fay & Christenb., *comb. nov.* Basionym: *Sorbus boissieri* C.K.Schneid., *Bull. Herb. Boissier Ser. 2*, 6: 312. 1906.
- Pyrus bombycilla** M.F.Fay & Christenb., *nom. nov.* Replaced synonym: *Cotoneaster amoenus* E.H.Wilson, *Gard. Chron.* 51: 2. 1912, not: *Pyrus amoena* Poit. & Turpin. Etymology: Named for the waxwing (*Bombycilla garrulus* L.), a bird that likes fruits of this and other small-fruited *Pyrus* species.
- Pyrus borbasii** (Jáv.) M.F.Fay & Christenb., *comb. nov.* Basionym: *Sorbus borbasii* Jáv., *Bot. Közlem.* 14: 99. 1915.
- Pyrus borealichinensis** (Hurus.) M.F.Fay & Christenb., *comb. nov.* Basionym: *Cotoneaster multiflorus* Bunge var. *borealichinensis* Hurus., *Acta Phytotax. Geobot.* 13: 230. 1943.
- Pyrus borosiana** (Kárpáti) M.F.Fay & Christenb., *comb. nov.* Basionym: *Sorbus borosiana* Kárpáti, *Agrártud. Egyet. Kert- Szölgázdaság*tud. Karának Közlem. 12: 144. 1948.
- Pyrus bosniaca** (Hajrud, Frajman, Schönw. & Bogunić) M.F.Fay & Christenb., *comb. nov.* Basionym: *Sorbus bosniaca* Hajrud, Frajman, Schönw. & Bogunić, *Bot. J. Linn. Soc.* 178: 682. 2015.
- Pyrus bradyi** (E.C.Nelson & J.Fryer) M.F.Fay & Christenb., *comb. nov.* Basionym: *Cotoneaster*

- bradyi* E.C.Nelson & J.Fryer, *Glasra* 2: 131. 1995.
- Pyrus brandisii (G.Klotz) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster brandisii* G.Klotz, *Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Reihe* 15: 537. 1966.
- Pyrus breviflora (Rehder & E.H.Wilson) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster breviflorus* Rehder & E.H.Wilson, *Pl. Wilson. (Sargent)* 1: 177. 1912.
- Pyrus brickellii (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster brickellii* J.Fryer & B.Hylmö, *New Plantsman* 8: 236. 2001.
- Pyrus bristoliensis (Wilmott) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus bristoliensis* Wilmott, *Proc. Linn. Soc. Lond.* 146: 76. 1934.
- Pyrus britannica M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Sorbus anglica* Hedl., *Nyt Mag. Naturvidensk.* 52: 258. 1914, not: *Pyrus anglica* Poit. & Turpin (note: *Pyrus anglica* (Hedl.) Druce is an illegitimate homonym). Etymology: This is a species found in Britain, hence the name.
- Pyrus bukkensis (Soó) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus aria* L. subsp. *buekkensis* Soó, *Tisia* 2: 222. 1937, as 'bükkensis'.
- Pyrus bullatus (Bois) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster bullatus* Bois, *Bull. Soc. Bot. France* 51: 153. 1904.
- Pyrus bulleyana (McAll.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus bulleyana* McAll., *Gen. Sorbus*: 232. 2005.
- Pyrus bumthangensis (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster bumthangensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 308. 2009.
- Pyrus burmanica (G.Klotz) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster burmanicus* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 21: 1004. 1972.
- Pyrus burtonsmithiorum (Rushforth) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus burtonsmithiorum* Rushforth, *Int. Dendrol. Soc. Year Book* 2009: 85. 2010.
- Pyrus busambarensis (G.Castellano, P.Marino, Raimondo & Spadaro) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus busambarensis* G.Castellano, P.Marino, Raimondo & Spadaro, *Pl. Biosystems* 146(Suppl.): 339. 2012.
- Pyrus buschiana (Zinserl.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus buschiana* Zinserl., *Fl. URSS* 9: 392. 1939.
- Pyrus buxifolia (Wall. ex Lindl.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster buxifolius* Wall.
- ex Lind.*, *Edward's Bot. Reg.* 15: t. 1229. 1829.
- Pyrus caeruleomontana (Bernátová & Májovský) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus caeruleomontana* Bernátová & Májovský, *Biologia (Bratislava)* 58: 786. 2003.
- Pyrus calcicola (W.B.Liao & W.Guo) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus calcicola* W.B.Liao & W.Guo, *Phytotaxa* 261: 261. 2016.
- Pyrus californica (Greene) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus californica* Greene, *Pittonia* 4: 131. 1900.
- Pyrus decaisnei M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Pourthiae calleryana* Decne., *Nouv. Arch. Mus. Par. Ser. 1, 10:* 147. 1874, not: *Pyrus calleryana* Decne. Etymology: Named for Joseph Decaisne who originally described this species.
- Pyrus callistei M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Cotoneaster rockii* G.Klotz, *Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Reihe* 12: 775. 1963, not: *Pyrus rockii* (Rehder) M.F.Fay & Christenh. Etymology: In Greek mythology (Judgment of Paris), Eris was not invited at the marriage of Peleus and Thetis. She was not amused, so she gave Paris a golden apple inscribed with the word καλλίστη (kallistē, "for the fairest") to take to the wedding and give to the most beautiful of all goddesses, which did not go down well.
- Pyrus callosa (Chun ex K.C.Kuan) M.F.Fay & Christenh., comb. nov.** Basionym: *Photinia callosa* Chun ex K.C.Kuan, *Acta Phytotax. Sin.* 8: 229. 1963.
- Pyrus calocarpa (Rehder & E.H.Wilson) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster multiflorus* Bunge var. *calocarpus* Rehder & E.H.Wilson, *Pl. Wilson. (Sargent)* 1: 170. 1912.
- Pyrus caloneura (Stapf) M.F.Fay & Christenh., comb. nov.** Basionym: *Micromeles caloneura* Stapf, *Bull. Misc. Inform. Kew* 1910: 192. 1910
- Pyrus camrensis (M.Proctor) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus camrensis* M.Proctor, *Watsonia* 27: 208. 2009.
- Pyrus cambrica (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster cambrica* J.Fryer & B.Hylmö, *Watsonia* 20: 62. 1994.
- Pyrus camilli-schneideri (Pojark.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster camilli-schneideri* Pojark., *Not. Syst. Inst. Bot. Acad. Sci. USSR* 17: 180. 1955.
- Pyrus campanulata (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster campanulatus* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 308. 2009.
- Pyrus capsicina (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster*

- capsicinus* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 309. 2009.
- Pyrus carmesina** (McAll.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus carmesina* McAll., *Gen. Sorbus* 231. 2005.
- Pyrus carniolica** (Kárpáti) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus carniolica* Kárpáti, *Biol. Vestn. 16*: 21. 1968.
- Pyrus cascadiensis** (G.N.Jones) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus cascadiensis* G.N.Jones, *Univ. Wash. Publ. Biol. 7*: 108. 1938.
- Pyrus cashmirensis** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster cashmirensis* G.Klotz, *Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Reihe 12*: 778. 1963.
- Pyrus cavei** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster cavei* G.Klotz, *Bull. Bot. Surv. India 5*: 213. 1963. Replaced synonym: *Cotoneaster cordifolius* G.Klotz, *Bull. Bot. Surv. India 5*: 212. 1963, not: *Pyrus cordifolia* Zamani & Attar.
- Pyrus centralasiatica** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Cotoneaster turcomanicus* Pojark., *Not. Syst. Inst. Bot. Acad. Sci USSR 21*: 162. 1961, not: *Pyrus turcomanica* Maleev. Etymology: This species occurs in Central Asia, hence the name.
- Pyrus chadwellii** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster chadwellii* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 309. 2009.
- Pyrus cheddarensis** (L.Houston & Ashley Robertson) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus cheddarensis* L.Houston & Ashley Robertson, *Watsonia 27*: 288. 2009.
- Pyrus chelseana** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Mespilus tomentosa* Aiton, *Hort. Kew. Cat. 2*: 174. 1789, not: *Pyrus tomentosa* Moench. Etymology: Named for Chelsea Physic Garden in London, where the type specimen was cultivated.
- Pyrus chengii** (C.J.Qi) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus chengii* C.J.Qi, *J. Nanjing Technol. Coll. Forest Prod. 1981*: 124. 1981.
- Pyrus chengkangensis** (T.T.Yu) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster chengkangensis* T.T.Yu, *Acta Phytotax. Sin. 8*: 220. 1963.
- Pyrus chihsiniana** (K.C.Kuan) M.F.Fay & Christenh., *comb. nov.* Basionym: *Photinia chihsiniana* K.C.Kuan, *Acta Phytotax. Sin. 8*: 227. 1963.
- Pyrus china** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Sorbus forrestii* McAll. & Gillham, *Bot. Mag. 183*: t. 792. 1980, not: *Pyrus forrestii* (G.Klotz) M.F.Fay & Christenh. Etymology: This is a Chinese species, hence the name.
- Pyrus chingiana** (Hand.-Mazz.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Photinia chingiana* Hand.-Mazz., *Sinensis 2*: 125. 1932.
- Pyrus chingshuiensis** (T.Shimizu) M.F.Fay & Christenh., *comb. nov.* Basionym: *Pourthiae chingshuiensis* T.Shimizu, *J. Fac. Text. Sci. & Technol. Shinshu Univ. no 36 (ser. A, Biol.) 12*: 36. 1963.
- Pyrus chitralensis** (Vassilcz.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Malus chitralensis* Vassilcz., *Fl. Iranica [Rechinger] 66*: 38. 1969.
- Pyrus chuana** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster chuanaus* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 309. 2009.
- Pyrus chulingensis** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster chulingensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 309. 2009.
- Pyrus chungtiensis** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster chungtiensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 108. 2009.
- Pyrus cinerascens** (Rehder) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster franchetii* Bois var. *cinerascens* Rehder, *J. Arnold Arbor. 4*: 114. 1923.
- Pyrus cinereopubescens** (McAll.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus cinereopubescens* McAll., *Gen. Sorbus*: 233. 2005.
- Pyrus cinovskisiae** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster cinovskisiae* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 310. 2009.
- Pyrus ×clarkiana** (C.Weber) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster ×clarkiana* C.Weber, *Arnoldia 23*: 53. 1963. (note: = *Pyrus japonica* × *Pyrus cathayensis*).
- Pyrus coadunata** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster coadunatus* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 310. 2009.
- Pyrus cochleariformis** (Meierott) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus cochleariformis* Meierott, *Ber. Bayer. Bot. Ges. Sonderband*: 176. 2005.
- Pyrus cochleata** (Franch.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster buxifolius* Wall. ex Lindl. f. *cochleatus* Franch., *Pl. Delavay.* : 224. 1890.
- Pyrus colchica** (Zinserl.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus colchica* Zinserl., *Fl. URSS 9*: 391. 1939.
- Pyrus collina** (M.Lepší, P.Lepší & N.Mey.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus collina* M.Lepší, P.Lepší & N.Mey., *Preslia 87*: 145. 2015.
- Pyrus concavifolia** (C.Németh) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus concavifolia*

- C.Németh, *Stud. Bot. Hung.* 47: 299. 2016.
- Pyrus confusa** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster confusus* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 19: 340. 1970.
- Pyrus conspicua** (J.B.Comber ex C.Marquand) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster conspicuus* J.B.Comber ex C.Marquand, *Bull. Misc. Inform. Kew* 1937: 119. 1937.
- Pyrus convexa** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster convexus* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 310. 2009.
- Pyrus cooperi** (C.Marquand) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster cooperi* C.Marquand, *Hooker's Icon. Pl.* 32: t. 3146. 1930.
- Pyrus cordigastensis** (N.Mey.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus cordigastensis* N.Mey., *Ber. Bayer. Bot. Ges. Sonderband* : 143. 2005.
- Pyrus coriacea** (Franch.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster coriaceus* Franch., *Pl. Delavay* 3: 222. 1890.
- Pyrus cornifolia** (Rehder & E.H.Wilson) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster obscurus* Rehder & E.H.Wilson var. *cornifolius* Rehder & E.H.Wilson, *Pl. Wilson. (Sargent)* 1: 162. 1912.
- Pyrus brevipetiolata** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Sorbus brevipetiolata* T.H.Nguyễn & Yakovlev, *Bot. Zhurn. (Moscow & Leningrad)* 66: 1189. 1981.
- Pyrus coxii** (McAll.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus coxii* McAll., *Gen. Sorbus*: 232. 2005.
- Pyrus crassifolia** (H.Lév.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Photinia crassifolia* H.Lév., *Fl. Kouy-Tchéou*: 349. 1915.
- Pyrus crataegaster** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Cotoneaster serotinus* Hutch., *Bot. Mag.* 146: t. 8854. 1920, not: *Pyrus serotina* Rehder. Etymology: From *Crataegus*, a genus in Rosaceae, and Greek αστέρ, a star.
- Pyrus crispii** (Exell) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster crispii* Exell, *Gard. Chron.* 83: 44. 1928.
- Pyrus croatica** (Kárpáti) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus austriaca* (Beck) Prain subsp. *croatica* Kárpáti, *Feddes Repert. Spec. Nov. Regni Veg.* 62: 177. 1960.
- Pyrus croceocarpa** (P.D.Sell) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus croceocarpa* P.D.Sell, *Watsonia* 17: 392. 1989.
- Pyrus cucphuongensis** (T.H.Nguyễn & Yakovlev) M.F.Fay & Christenh., *comb. nov.* Basionym: *Photinia cucphuongensis* T.H.Nguyễn & Yakovlev,
- Bot. Zhurn. (Moscow & Leningrad)* 65: 1351. 1980.
- Pyrus cucullifera** (M.Lepší & P.Lepší) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus cucullifera* M.Lepší & P.Lepší, *Preslia* 87: 125. 2015.
- Pyrus cunonioides** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Sorbus rufoferruginea* C.K.Schneid., *Ill. Handb. Laubholzk.* 2: 996. 1912 = *Pyrus rufoferruginea* (C.K.Schneid.) Cardot, nom. illeg., not: *Pyrus rufoferruginea* Koidz. Etymology: This species superficially resembles a species of *Cunonia* (Cunoniaceae), hence the name.
- Pyrus dacica** (Borbás) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus dacica* Borbás, *Oesterr. Bot. Z.* 37: 404. 1887. Replaced synonym: *Sorbus semipinnata* Borbás, *Math. Természettud. Értes.* 1: 85. 1883, not: *Pyrus semipinnata* Bechst., nor: *Pyrus semipinnata* Roth.
- Pyrus daliensis** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster daliensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 310. 2009.
- Pyrus dammeri** (C.K.Schneid.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster dammeri* C.K.Schneid., *Illustr. Handb. Laubholzk.* 1: 761. 1906.
- Pyrus danubialis** (Jáv.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus cretica* Dippel f. *danubialis* Jáv., *Bot. Közlem.* 14: 104. 1915.
- Pyrus davidiana** (Decne.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Stranvaesia davidiana* Decne., *Nouv. Arch. Mus. Par. Ser. 1*, 10: 179. 1874.
- Pyrus davidsoniae** (Rehder & E.H.Wilson) M.F.Fay & Christenh., *comb. nov.* Basionym: *Photinia davidsoniae* Rehder & E.H.Wilson, *Pl. Wilson. (Sargent)* 1: 185. 1912.
- Pyrus decandra** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster decandrus* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 311. 2009.
- Pyrus decipientiformis** (Kárpáti) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus decipientiformis* Kárpáti, *Agrártud. Egyet. Kert- Szölögazdaságtud. Karának Évk.* 1: 36. 1950.
- Pyrus declinata** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster declinatus* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 311. 2009.
- Pyrus deflexa** (Hemsl.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Photinia deflexa* Hemsl., *Ann. Bot. (Oxford)* 9: 153. 1895.
- Pyrus degenii** (Jáv.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus degenii* Jáv., *Magyar Bot. Lapok* 25: 85. 1927.
- Pyrus ×delacourii** (André) M.F.Fay & Christenh., *comb. nov.* Basionym: *Raphiolepis ×delacourii* André, *Rev.*

- Hort. (Paris) 72: 698. 1900.
- Pyrus delavayana** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster delavayanus* G.Klotz, Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Reihe 12: 774. 1963.
- Pyrus delicata** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Cotoneaster gracilis* Rehder & E.H.Wilson, Pl. Wilson. (Sargent) 1: 167. 1912, not: *Pyrus gracilis* Siebold & Zucc. Etymology: This is an elegant, delicate species, hence the name.
- Pyrus delphinensis** (Chatenier) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster delphinensis* Chatenier, Bull. Soc. Bot. France 69: 712. 1923.
- Pyrus detergibilis** (Merr.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus detergibilis* Merr., Brittonia 4: 76. 1941.
- Pyrus devoniensis** (E.F.Warb.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus devoniensis* E.F.Warb., Watsonia 4: 46. 1957.
- Pyrus dielsiana** (E.Pritz.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster dielsianus* E.Pritz., Bot. Jahrb. Syst. 29: 385. 1900.
- Pyrus difficilis** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster difficilis* G.Klotz, Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe 21: 1017. 1972.
- Pyrus ×dippelii** (Zabel) M.F.Fay & Christenh., *comb. nov.* Basionym: *Aronia ×dippelii* Zabel, Handb. Laubholzben. [Beissner & al.]: 193. 1903. (note: *Pyrus aria* × *Pyrus melanocarpa*).
- Pyrus disaster** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Cotoneaster orientalis* Kerner, Oesterr. Bot. Z. 19: 270. 1869, not: *Pyrus orientalis* Pall. Etymology: From Greek δισκατομύριο, abbreviated here as δισ, a billion, and αστέρ, a star.
- Pyrus dissimilis** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster dissimilis* G.Klotz, Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe 21: 984. 1972.
- Pyrus divaricata** (Rehder & E.H.Wilson) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster divaricatus* Rehder & E.H.Wilson, Pl. Wilson. (Sargent) 1: 157. 1912.
- Pyrus diversicolor** (Bernátová & Májovský) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus diversicolor* Bernátová & Májovský, Biologia (Bratislava) 58: 788. 2003.
- Pyrus doerriana** (N.Mey.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus doerriana* N.Mey., Ber. Bayer. Bot. Ges. 86: 228. 2016.
- Pyrus dokeriensis** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster dokeriensis* G.Klotz, Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-
- Naturwiss. Reihe 21: 974. 1972.
- Pyrus dolichofoliolatus** (X.F.Gao & Meng Li) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus dolichofoliolatus* X.F.Gao & Meng Li, Phytotaxa 227: 191. 2015.
- Pyrus dolomitica** (Mikoláš) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus dolomitica* Mikoláš, Thaiszia 6: 2. 1997.
- Pyrus dominii** (Kárpáti) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus dominii* Kárpáti, Bot. Közlem. 52: 140. 1966.
- Pyrus domugledica** (Kárpáti) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus domugledica* Kárpáti in Németh, Acta Bot. Hung. 52: 383. 2010.
- Pyrus dracofolia** (C.Németh) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus dracofolia* C.Németh, Kitaibelia 14: 93. 2009, as 'dracofolius'.
- Pyrus draconis** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Sorbus stenophylla* M.Proctor, Watsonia 27: 214. 2009, not: *Pyrus stenophylla* (Hand.-Mazz.) M.F.Fay & Christenh. Etymology: Named for the dragon on the flag of Wales, the country to which this species is endemic. From Latin draco.
- Pyrus drogochia** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster drogochius* J.Fryer & B.Hylmö, Cotoneasters Compreh. Guide : 311. 2009.
- Pyrus dunnii** (Rehder) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus dunnii* Rehder, Pl. Wilson. (Sargent) 2: 273. 1915.
- Pyrus duthieana** (C.K.Schneid.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster distichus* Lange var. *duthieanus* C.K.Schneid., Ill. Handb. Laubholzk. 1: 745. 1906, as 'duthieana'.
- Pyrus eburnea** (McAll.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus eburnea* McAll., Gen. Sorbus : 233. 2005.
- Pyrus elata** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster elatus* G.Klotz, Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Reihe 12: 781. 1963.
- Pyrus elegans** (Rehder & E.H.Wilson) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster dielsianus* Pritzel var. *elegans* Rehder & E.H.Wilson, Pl. Wilson. (Sargent) 1: 166. 1912.
- Pyrus eleonorae** (Aldasoro, Aedo & C.Navarro) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus eleonorae* Aldasoro, Aedo & C.Navarro, Syst. Bot. Monogr. 69: 51. 2004.
- Pyrus ellipsoidalis** (McAll.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus ellipsoidalis* McAll., Gen. Sorbus: 232. 2005.
- Pyrus elliptica** (Lindl.) M.F.Fay & Christenh., *comb.*

**nov.** Basionym: *Eriobotrya elliptica* Lindl., *Trans. Linn. Soc. London* 13: 102. 1821.

**Pyrus emeiensis (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster emeiensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 311. 2009.

**Pyrus eminens (E.F.Warb.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus eminens* E.F.Warb., *Watsonia* 4: 44. 1957.

**Pyrus eminentiformis (T.C.G.Rich) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus eminentiformis* T.C.G.Rich, *Watsonia* 27: 210. 2009.

**Pyrus eminentoides (L.Houston) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus eminentoides* L.Houston, *Watsonia* 27: 290. 2009.

**Pyrus encavei (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster encavei* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 311. 2009.

**Pyrus epidendron (Hand.-Mazz.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus epidendron* Hand.-Mazz., *Akad. Wiss. Wien, Math.-Naturwiss. Kl., Anz.* 60: 135. 1923.

**Pyrus eris M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Sorbus salwinensis* T.T.Yu & L.T.Lu, *Kew Bull.* 64: 574. 2009, not: *Pyrus salwinensis* (Hand.-Mazz.) M.F.Fay & Christenh. Etymology: Named for "Eris", Greek goddess of discord. The myth goes that at the marriage of Peleus and Thetis, Eris, was not invited. She was not amused, so she gave Paris a golden apple inscribed with the word καλλίστη (kallistē, "for the fairest") to take to the wedding.

**Pyrus errata (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster errata* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 311. 2009.

**Pyrus escalloniifolia (Schltdl.) M.F.Fay & Christenh., comb. nov.** Basionym: *Crataegus escalloniifolia* Schltdl., *Linnaea* 28: 468. 1857.

**Pyrus esfandiarii (Khat.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster esfandiarii* Khat., *Iran. J. Bot.* 5: 2. 1991.

**Pyrus esserteauiana (Koehne) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus esserteauiana* Koehne, *Pl. Wilson. (Sargent)* 1: 459–460. 1913.

**Pyrus estiensis (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster estiensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 311. 2009.

**Pyrus eugenii-kelleri (Kárpáti) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus eugenii-kelleri* Kárpáti, *Hung. Acta Biol.* 1: 113. 1949.

**Pyrus eureka M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Photinia bodinieri* H.Lév., *Repert. Spec. Nov. Regni Veg.* 4: 334. 1907, not: *Pyrus bodinieri*

H.Lév. Etymology: From Greek εύρηκα, I found.

**Pyrus evae M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Mespilus cotoneaster* L. var. *nigra* Wahlb., *Fl. Gothob.* 53. 1820, not: *Pyrus nigra* (Willd.) Sarg. Etymology: This species is named for Eve of the book of Genesis, who ate the apple of paradise.

**Pyrus evansii (T.C.G.Rich) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus evansii* T.C.G.Rich, *New J. Bot.* 4: 2. 2014.

**Pyrus eximia (Kovanda) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus eximia* Kovanda, *Preslia* 56: 170. 1984.

**Pyrus eyola M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Photinia parviflora* Card., *Notul. Syst. (Paris)* 3: 378. 1918, not: *Pyrus parviflora* Desf. Etymology: Named for Dame Eyola, a plant taking the form of a motherly woman who lives in the House of Change from *The Neverending Story* (Ende, 1979) who carried apples on her head.

**Pyrus eystettensis (N.Mey.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus eystettensis* N.Mey., *Ber. Bayer. Bot. Ges. Sonderband*: 165. 2005.

**Pyrus falconeri (G.Klotz) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster falconeri* G.Klotz, *Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Reihe* 15: 535. 1966.

**Pyrus fangiana (T.T.Yu) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster fangianus* T.T.Yu, *Acta Phytotax. Sin.* 8: 219. 1963.

**Pyrus fansipanensis (McAll.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus fansipanensis* McAll., *Gen. Sorbus*: 233. 2005.

**Pyrus fantabulosa M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Pourthiae parvifolia* E.Pritz., *Bot. Jahrb. Syst.* 29: 389. 1900, not: *Pyrus parvifolia* Blatt. Etymology: From Polari, *fantabulosa*, meaning wonderful.

**Pyrus farreri (G.Klotz) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster farreri* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena Math.-Naturwiss. Reihe* 21: 1006. 1972.

**Pyrus fastigiata (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster fastigiatus* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 312. 2009.

**Pyrus favargeri (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster favargeri* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 312. 2009.

**Pyrus filipes (Hand.-Mazz.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus filipes* Hand.-Mazz., *Symb. Sin. Pt. 7*: 472. 1933.

**Pyrus fischeri (N.Mey.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus fischeri* N.Mey., *Ber. Bayer.*

*Bot. Ges. Sonderband*: 172. 2005.

**Pyrus flinckii** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster flinckii* J.Fryer & B.Hylmö, *New Plantsman* 5: 140. 1998.

**Pyrus floccosa** (Rehder & E.H.Wilson) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster salicifolius* Franch. var. *floccosus* Rehder & E.H.Wilson, *Pl. Wilson. (Sargent)* 1: 173. 1912.

**Pyrus florida** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster floridus* J.Fryer & B.Hylmö, *J. Bot. Res. Inst. Texas* 2: 55. 2008.

**Pyrus florifera** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Cotoneaster racemiflorus* Booth ex Bosse var. *veitchii* Rehder & E.H.Wilson, *Pl. Wilson. (Sargent)* 3(3): 431. 1917, not *Pyrus xveitchii* (Trabut) M.F.Fay & Christenh. Etymology: This species bears abundant flowers, hence its name.

**Pyrus fokienensis** (Finet & Franch.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Photinia glabra* (Thunb.) Maxim. var. *fokienensis* Finet & Franch., *Bull. Soc. Bot. France* 46: 207. 1899.

**Pyrus formosensis** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Cotoneaster taiwanensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide*: 316. 2009, not: *Pyrus taiwanensis* Iketani & H.Ohashi. Etymology: This species is found on Taiwan, which was formerly called Formosa, hence this choice of epithet.

**Pyrus forrestii** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster forrestii* G.Klotz, *Bull. Bot. Surv. India* 5: 209. 1963.

**Pyrus foveolata** (Rehder & E.H.Wilson) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster foveolatus* Rehder & E.H.Wilson, *Pl. Wilson. (Sargent)* 1: 162. 1912.

**Pyrus franchetii** (Bois) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster franchetii* Bois, *Rev. Hortic.* 2: 380. 1902.

**Pyrus franconica** (Bornm.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus franconica* Bornm., *Beih. Bot. Centralbl.* 36: 186. 1918.

**Pyrus fraxinus** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Sorbus cashmiriana* Hedl., *Kongl. Svenska Vetensk.-Akad. Handl.* 35(1): 35. 1901, not: *Pyrus cashmiriana* Cardot. Etymology: This species has leaves that superficially resemble those of an ash tree, *Fraxinus* (Oleaceae).

**Pyrus frigida** (Wall. ex Lindl.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster frigidus* Wall. ex Lindl., *Edward's Bot. Reg.* 15: t. 1229. 1829.

**Pyrus froebelii** (Sax ex Vilm.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster froebelii* Sax ex Vilm., *J. Arnold Arbor.* 35: 340. 1954.

**Pyrus frutescens** (McAll.) M.F.Fay & Christenh., *comb.*

*nov.* Basionym: *Sorbus frutescens* McAll., *Gen. Sorbus*: 233. 2005.

**Pyrus fruticosa** (Steud.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus fruticosa* Steud., *Nomencl. Bot.* : 800. 1821.

**Pyrus fryeræ** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Cotoneaster tardiflorus* J.Fryer & B.Hylmö, *New Plantsman* 5: 139. 1998, not: *Pyrus tardiflora* Poit. & Turpin. Etymology: This species is named for Jeanette Fryer, who first described it.

**Pyrus fulvida** (W.W.Sm.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster hebephylloides* Diels var. *fulvidus* W.W.Sm., *Not. Roy. Bot. Gard., Edinburgh* 10: 22. 1917, as 'fulvida'.

**Pyrus futakiana** (Kárpáti) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus futakiana* Kárpáti in Bertová, *Fl. Slovenska IV/3*: 441. 1992.

**Pyrus gabrieljanae** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Sorbus tamamschjanæ* Gabrieljan, *Biol. Zhurn. Armenii* 22(2): 42. 1969, not: *Pyrus tamamschjanæ* Fed. (orth. var.). Etymology: This species is named for Elenora Gabrieljan, who first described it.

**Pyrus gallica** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Sorbus remensis* Cornier, *Bull. Mens. Soc. Linn. Lyon* 78: 36. 2009, not: *Pyrus remensis* Poit. & Turpin. Etymology: This species is found in France, hence the epithet chosen.

**Pyrus gamblei** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster gamblei* G.Klotz, *Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Reihe* 15: 530. 1966.

**Pyrus ganghobaensis** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster ganghobaensis* J.Fryer & B.Hylmö, *New Plantsman* 5: 136. 1998.

**Pyrus gansuana** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Cotoneaster kansuensis* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 21: 1001. 1972, not: *Pyrus kansuensis* Batalin. Etymology: This species is only known from the Chinese province Gansu.

**Pyrus ganymedes** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Stranvaesia tomentosa* T.T.Yu & T.C.Ku, *Acta Phytotax. Sin.* 13: 102. 1975, not: *Pyrus tomentosa* Moench. Etymology: Named for Γανυμήδης, a prince of Troy who was kidnapped by Zeus (in the form of an eagle) because of his outstanding beauty.

**Pyrus garhwalensis** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster garhwalensis* G.Klotz, *Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Reihe* 15: 543. 1966.

**Pyrus garraudiana** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Cotoneaster intermedius*

- H.J.Coste, *Bull. Soc. Bot. France* 40: 122. 1894, not: *Pyrus intermedia* Bechst., nor: *Pyrus intermedia* Ten. Etymology: Named for L. Garraud, for his contributions to *Cotoneaster* taxonomy.
- Pyrus gauckleri* (N.Mey.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus gauckleri* N.Mey., *Ber. Bayer. Bot. Ges. Sonderband*: 96. 2005.
- Pyrus gaultherioides* M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Cotoneaster fruticosus* J.Fryer & B.Hylm  , *Cotoneasters Compreh. Guide*: 312. 2009, not: *Pyrus fruticosa* (Steud.) M.F.Fay & Christenh. Etymology: This species resembles a wintergreen, *Gaultheria* (Ericaceae).
- Pyrus gayana* (Decne.) M.F.Fay & Christenh., comb. nov.** Basionym: *Osteomeles gayana* Decne., *Nouv. Arch. Mus. Par. Ser. 1*, 10: 183. 1874.
- Pyrus gayeriana* (K  rpti) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus gayeriana* K  rpti, *Agr  rtud. Egyet. Kert- Sz  l  gazdas  gtud. Karnak vk.* 1(14): 35. 1950.
- Pyrus gemella* (Kovanda) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus gemella* Kovanda, *Verh. Zool.-Bot. Ges.   sterreich* 133: 329. 1996.
- Pyrus genesis* M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Malus muliensis* T.C.Ku, *Acta Phytotax. Sin.* 29: 83. 1991, not: *Pyrus muliensis* (G.Klotz) M.F.Fay & Christenh. Etymology: This species is named for the Book of Genesis, in which an apple tree played an important role.
- Pyrus genitana* (Hurus.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster genitanus* Hurus., *Acta Phytotax. Geobot.* 13: 233. 1943.
- Pyrus gerecseensis* (Boros & K  rpti) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus gerecseensis* Boros & K  rpti, *Hung. Acta Biol.* 1: 107. 1949.
- Pyrus gilgitana* (McAll.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus gilgitana* McAll., *Gen. Sorbus*: 235. 2005.
- Pyrus giraldii* (Flinck & B.Hylm   ex G.Klotz) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster giraldii* Flinck & B.Hylm   ex G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 21: 1018. 1972.
- Pyrus glabriuscula* (McAll.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus glabriuscula* McAll., *Gen. Sorbus*: 232. 2005.
- Pyrus glacialis* (Hook.f. ex Wenz.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster microphyllus* Wall. ex Lindl. f. *glacialis* Hook.f. ex Wenz, *Linnaea* 38: 195. 1874.
- Pyrus glaucophylla* (Franch.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster glaucophyllus* Franch., *Pl. Delavay.* 3: 222. 1890.
- Pyrus globosa* (T.T.Yu & H.T.Tsai) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus globosa* T.T.Yu & H.T.Tsai, *Bull. Fan Mem. Inst. Biol. Bot.* 7: 121. 1936.
- Pyrus glomerata* (Rehder & E.H.Wilson) M.F.Fay & Christenh., comb. nov.** Basionym: *Photinia glomerata* Rehder & E.H.Wilson, *Pl. Wilson. (Sargent)* 1: 190. 1912.
- Pyrus godiva* M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Rhaphiolepis integrerrima* Hook & Arn., *Bot. Beechey Voy.*: 263. 1838, not: *Pyrus integrerrima* Wall. ex D.Don Etymology: Named for Lady Godgifu (Old English, meaning 'gift of god', Latinised as Godiva), Countess of Mercia in the 11<sup>th</sup> Century, who rode a horse naked to be pardoned for her husband's oppressive taxes.
- Pyrus goloskokovii* (Pojark.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster goloskokovii* Pojark., *Opred. Rast. Sred. Azii* 5: 245. 1976.
- Pyrus gomorrana* M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Rhaphiolepis salicifolia* Lind., *Collect. Bot.* 1: t. 3. 1821, not: *Pyrus salicifolia* Pall. Etymology: Named for the Biblical sinful city mentioned in Genesis.
- Pyrus gonggashanensis* (J.Fryer & B.Hylm  ) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster gonggashanensis* J.Fryer & B.Hylm  , *Cotoneasters Compreh. Guide*: 312. 2009.
- Pyrus gonggashanica* (McAll.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus gonggashanica* McAll., *Gen. Sorbus*: 234. 2005.
- Pyrus gotlandica* M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Cotoneaster canescens* Vestergr. ex B.Hylm  , *Svensk Bot. Tidskr.* 87: 319. 1993, not: *Pyrus canescens* Spach. Etymology: This is a species found on Gotland, Sweden, hence the name.
- Pyrus gracia* (I.F.Schneid.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster gracia* I.F.Schneid., *Dendroflora* 1: 35. 1964. (note: originally described as a cultivar of hybrid origin, this is more likely to be a species and should be treated as such).
- Pyrus granatensis* (Boiss.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster granatensis* Boiss., *Elench. Pl. Nov. Hisp. Austr.*: 71. 1838.
- Pyrus grandifructa* M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Cotoneaster megalocarpus* M.Popov, *Bull. Soc. Imp. Naturalistes Moscou* 44: 128. 1935, not: *Pyrus megalocarpa* (Rehder) Bean. Etymology: This species has large fruits, hence the name.
- Pyrus greenii* (T.C.G.Rich) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus greenii* T.C.G.Rich, *New J. Bot.* 4: 3. 2014.
- Pyrus griffithiana* M.F.Fay & Christenh., nom. nov.**

Replaced synonym: *Photinia griffithii* Decne., *Nouv. Arch. Mus. Par. Ser. 1, 10: 142.* 1874, not: *Pyrus griffithii* Hook.f. Etymology: Named for William Griffith, following the lead of Joseph Descaine, who originally named this species in his honour.

***Pyrus guanii* (Rushforth) M.F.Fay & Christenb., comb. nov.** Basionym: *Sorbus guanii* Rushforth, *Int. Dendrol. Soc. Year Book 2009: 88.* 2010.

***Pyrus guanxianensis* (T.C.Ku) M.F.Fay & Christenb., comb. nov.** Basionym: *Sorbus guanxianensis* T.C.Ku, *Bull. Bot. Res., Harbin 10(3): 22.* 1990.

***Pyrus gulabi* M.F.Fay & Christenb., nom. nov.** Replaced synonym: *Sorbus rosea* McAll., *Gen. Sorbus: 236.* 2005, not: *Pyrus rosea* (Edgew.) M.F.Fay & Christenb. Etymology: The name means 'pink' in Urdu, the language spoken where this species occurs. It has pink flowers and pink fruit.

***Pyrus guerreris* (Phipps) M.F.Fay & Christenb., comb. nov.** Basionym: *Photinia guerreris* Phipps, *Canad. J. Bot. 70: 2158.* 1992.

***Pyrus haesitans* (Meierott) M.F.Fay & Christenb., comb. nov.** Basionym: *Sorbus haesitans* Meierott, *Ber. Bayer. Bot. Ges. Sonderband: 180.* 2005.

***Pyrus hajastana* (Gabrieljan) M.F.Fay & Christenb., comb. nov.** Basionym: *Sorbus hajastana* Gabrieljan, *Dokl. Akad. Nauk Armyanskoi S.S.R. 22: 87.* 1956.

***Pyrus hajastanica* (Nersesian) M.F.Fay & Christenb., comb. nov.** Basionym: *Cotoneaster hajastanicus* Nersesian, *Novosti Sist. Vyssh. Rast. 44: 106.* 2013.

***Pyrus haljamovae* (Bernátová & Májovský) M.F.Fay & Christenb., comb. nov.** Basionym: *Sorbus haljamovae* Bernátová & Májovský, *Biologia (Bratislava) 58: 784.* 2003.

***Pyrus hammelii* M.F.Fay & Christenb., nom. nov.** Replaced synonym: *Sorbus meyeri* S.Hammel & Haynold, *Kochia 8: 2.* 2014, not: *Pyrus meyeri* (Pojark.) M.F.Fay & Christenb. Etymology: This species was named for Steffen Hammel, who first described it.

***Pyrus harrysmithii* (Flinck & B.Hylmö) M.F.Fay & Christenb., comb. nov.** Basionym: *Cotoneaster harrysmithii* Flinck & B.Hylmö, *Bot. Not. (Lund) 115: 29.* 1962.

***Pyrus harziana* (N.Mey.) M.F.Fay & Christenb., comb. nov.** Basionym: *Sorbus harziana* N.Mey., *Ber. Bayer. Bot. Ges. Sonderband: 100.* 2005.

***Pyrus hazslinszkyana* (Soó) M.F.Fay & Christenb., comb. nov.** Basionym: *Sorbus aria* L. var. *hazslinszkyana* Soó, *Tisia 2: 218.* 1937, not: *Pyrus xhazslinszkyana* Terpó, *nom. inval., nom. nud.*

***Pyrus hebephylla* (Diels) M.F.Fay & Christenb., comb. nov.** Basionym: *Cotoneaster hebephylloides* Diels, *Not. Roy. Bot. Gard. Edinburgh 5: 273.* 1912.

***Pyrus hedegaardii* (J.Fryer & B.Hylmö) M.F.Fay &**

***Christenb., comb. nov.*** Basionym: *Cotoneaster hedegaardii* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide: 312.* 2009.

***Pyrus heleneae* (Koehne) M.F.Fay & Christenb., comb. nov.** Basionym: *Sorbus heleneae* Koehne, *Pl. Wilson. (Sargent) 1: 462.* 1913.

***Pyrus hellas* M.F.Fay & Christenb., nom. nov.** Replaced synonym: *Crataegus graeca* Spach, *Hist. Nat. Vég. 2: 102.* 1834, not: *Pyrus graeca* hort. ex Steud. Etymology: After Ελλας the modern Greek name for Greece.

***Pyrus henryi* (Nakai) M.F.Fay & Christenb., comb. nov.** Basionym: *Eriobotrya henryi* Nakai, *J. Arnold Arbor. 5: 70.* 1924.

***Pyrus heracleotica* M.F.Fay & Christenb., nom. nov.** Replaced synonym: *Cotoneaster creticus* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide: 310.* 2009, not: *Pyrus cretica* Willd. Etymology: Named for the hero Ἡράκλης, god of strength, health and agriculture in Greek mythology.

***Pyrus herae* M.F.Fay & Christenb., nom. nov.** Replaced synonym: *Eriobotrya latifolia* Hook.f., *Fl. Brit. India 2: 370.* 1878, not: *Pyrus ×latifolia* Lindl. ex Steud. Etymology: Named for Ἡρά, Greek goddess of marriage and femininity. The myth goes that at the marriage of Peleus and Thetis, Eris, the goddess of discord, was not invited. She was not amused, so she gave Paris a golden apple inscribed with the word καλλίστη (kallistēi, "for the fairest"). Aphrodite, Hera, and Athena all claimed to be the fairest, and the rightful owner of the apple.

***Pyrus herbipolitana* (Meierott) M.F.Fay & Christenb., comb. nov.** Basionym: *Sorbus herbipolitana* Meierott, *Ber. Bayer. Bot. Ges. Sonderband: 183.* 2005.

***Pyrus herefordensis* (D.Green) M.F.Fay & Christenb., comb. nov.** Basionym: *Sorbus herefordensis* D.Green, *New J. Bot. 4: 4.* 2014.

***Pyrus hersiana* (J.Fryer & B.Hylmö) M.F.Fay & Christenb., comb. nov.** Basionym: *Cotoneaster hersianus* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide: 312.* 2009.

***Pyrus heseltinei* (Rushforth) M.F.Fay & Christenb., comb. nov.** Basionym: *Sorbus heseltinei* Rushforth, *Int. Dendrol. Soc. Year Book 2009: 83.* 2010.

***Pyrus hesperidea* M.F.Fay & Christenb., nom. nov.** Replaced synonym: *Hesperomeles cuneata* Lindl., *Edwards's Bot. Reg. 23: sub t. 1956.* 1837, not: *Pyrus cuneata* Koidz. Etymology: Named for the Garden of the Hesperides, Ἐσπερίδες, where the golden apples of immortality grow.

***Pyrus hibernica* (E.F.Warb.) M.F.Fay & Christenb., comb. nov.** Basionym: *Sorbus hibernica* E.F.Warb., *Watsonia 4: 44.* 1957.

***Pyrus hicksii* (J.Fryer & B.Hylmö) M.F.Fay & Christenb.,**

- comb. nov.** Basionym: *Cotoneaster hicksii* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 313. 2009.
- Pyrus hillieri (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster hillieri* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 313. 2009.
- Pyrus himalaica (Gabrieljan) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus himalaica* Gabrieljan, *Bot. Zhurn. (Moscow & Leningrad)* 56: 658. 1971.
- Pyrus hippomenes M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Mespilus prunifolia* Marshall, *Arbust. Amer.*: 90. 1785, not: *Pyrus prunifolia* Willd. Etymology: Named for Ἱππομένης, a Calydonian hunstman in Greek mythology, who used golden apples to distract Atalanta so he could win the race and marry her.
- Pyrus hirsuta (Hand.-Mazz.) M.F.Fay & Christenh., comb. nov.** Basionym: *Photinia hirsuta* Hand.-Mazz., *Symb. Sin. Pt. 7*: 481. 1933.
- Pyrus hissarica (Pojark.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster hissaricus* Pojark., *Not. Syst. Inst. Bot. Acad. Sci. USSR* 16: 124. 1954.
- Pyrus hjelmqvistii (Flinck & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster hjelmqvistii* Flinck & B.Hylmö, *Watsonia* 18: 312. 1991.
- Pyrus hodjingensis (G.Klotz) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster hodjingensis* G.Klotz, *Wiss. Z. Martin-Luther-Univ. Jalle-Wittenberg, Math.-Naturwiss. Reihe* 12: 774. 1963.
- Pyrus hohenesteri (N.Mey.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus hohenesteri* N.Mey., *Ber. Bayer. Bot. Ges. Sonderband* : 103. 2005.
- Pyrus holubyana (Kárpáti) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus holubyana* Kárpáti, *Bot. Közlem.* 52: 137. 1966.
- Pyrus honanensis (Rehder) M.F.Fay & Christenh., comb. nov.** Basionym: *Malus honanensis* Rehder, *J. Arnold Arbor.* 2: 51. 1920.
- Pyrus hookeriana (Decne.) M.F.Fay & Christenh., comb. nov.** Basionym: *Eriobotrya hookeriana* Decne., *Nouv. Arch. Mus. Par. Ser. 1*, 10: 146. 1874.
- Pyrus hoppeana (N.Mey.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus hoppeana* N. Mey., *Ber. Bayer. Bot. Ges. Sonderband*: 150. 2005.
- Pyrus horizontalis (Decne.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster horizontalis* Decne., *Fl. Ser. Jard. Europe* 22: 168. 1877.
- Pyrus hornadensis (Mikoláš) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus hornadensis* Mikoláš, *Thaiszia* 25: 22. 2015.
- Pyrus horti-edeni M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Sorbus serotina* Koehne, *Mitt. Deutsch. Dendrol. Ges.* 15: 59. 1906, not: *Pyrus serotina* Rehder. Etymology: This species is named

for the Garden of Eden.

- Pyrus xhoustoniae (T.C.G.Rich) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus xhoustoniae* T.C.G.Rich, *Watsonia* 27: 370. 2009. (note: *Pyrus bristoliensis* × *Pyrus aria*)
- Pyrus hsingshangensis (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster hsingshangensis* J.Fryer & B.Hylmö, *Watsonia* 21: 335. 1997.
- Pyrus huahongdongensis (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster huahongdongensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 313. 2009.
- Pyrus hualiensis (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster hualiensis* J.Fryer & B.Hylmö, *New Plantsman* 8: 236. 2001.
- Pyrus hubeiana M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Cotoneaster hupehensis* Rehder & E.H.Wilson, *Pl. Wilson. (Sargent)* 1: 169. 1912, not: *Pyrus hupehensis* Pamp. Etymology: Named for the Chinese province of Hubei, formerly Hupeh, where this species occurs.
- Pyrus hudsonii (Rushforth) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus hudsonii* Rushforth, *Int. Dendrol. Soc. Year Book* 2009: 89. 2010.
- Pyrus hughmcallisteri (Mikoláš) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus hughmcallisteri* Mikoláš, *Thaiszia* 18: 66. 2009, as '*hugh-mcallisteri*'.
- Pyrus humilis (Dunn) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster humiliis* Dunn, *Bull. Misc. Inform. Kew* 1924(10): 384. 1924.
- Pyrus hummelii (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster hummelii* J.Fryer & B.Hylmö, *Watsonia* 21: 336. 1997.
- Pyrus hungarica (Bornm.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus aria* L. f. *hungarica* Bornm., *Mitth. Thüring. Bot. Vereins* 30: 54. 1913.
- Pyrus hurusawana (G.Klotz) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster hurusawanus* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 21: 984. 1972.
- Pyrus hylandereri (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster hylandereri* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 313. 2009.
- Pyrus hylmoei (Flinck & J.Fryer) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster hylmoei* Flinck & J.Fryer, *Plantsman* 15: 26. 1993.
- Pyrus hypocarpa (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster hypocarpus* J.Fryer & B.Hylmö, *Cotoneasters*

- Compreh. Guide* 313. 2009.
- Pyrus ichangensis** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster ichangensis* G.Klotz, *Mitt. Deutsch. Dendrol. Ges.* 82: 72. 1996.
- Pyrus ignava** (E.L.Wolf) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster ignavus* E.L.Wolf, *Bull. Imp. For. Inst. St. Petersburg* 15: 240. 1907.
- Pyrus ignescens** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster ignescens* J.Fryer & B.Hylmö, *New Plantsman* 8: 236. 2001.
- Pyrus ignota** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster ignotus* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 19: 339. 1970.
- Pyrus immortalis** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Cotoneaster marginatus* Lindl. ex Loudon, *Encycl. Trees & Shrubs*: 411. 1842, not: *Pyrus marginata* Kit. Etymology: This is a hardy species that can live for a long time. However, its fruits will not convey immortality.
- Pyrus impressivena** (Hayata) M.F.Fay & Christenh., *comb. nov.* Basionym: *Photinia impressivena* Hayata, *Icon. Pl. Formosan.* 5: 67. 1915.
- Pyrus incana** (W.W.Sm.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster hebecephalus* Diels var. *incanus* W.W.Sm., *Not. Roy. Bot. Gard. Edinburgh* 10(46): 22. 1917.
- Pyrus indurata** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster induratus* J.Fryer & B.Hylmö, *Watsonia* 21: 339. 1997.
- Pyrus inexpectata** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster inexpectatus* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 27: 23. 1978.
- Pyrus insculpta** (Diels) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster insculptus* Diels, *Not. Roy. Bot. Gard. Edinburgh* 5: 273. 1912.
- Pyrus insignoides** hort. ex M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Cotoneaster insignis* Pojark., *Fl. USSR* 9: 330. 1939, not: *Pyrus insignis* Hook.f.
- Pyrus insolita** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster insolitus* G.Klotz, *Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Reihe* 15: 536. 1966.
- Pyrus integrifolia** (Lindl.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Photinia integrifolia* Lindl., *Trans. Linn. Soc. London* 13: 103. 1821.
- Pyrus iranica** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Cotoneaster persicus* Pojark., *Not. Syst. Inst. Bot. Acad. Sci. USSR* 16: 118. 1954, not: *Pyrus persica* Pers. Etymology: This species occurs in Iran, formerly called Persia, hence the choice of name.
- Pyrus istriaca** (Kárpáti) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus istriaca* Kárpáti, *Biol. Vestn.* 16: 19. 1968.
- Pyrus javorkana** (Somlyay, Sennikov & Vojtkó) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus javorkana* Somlyay, Sennikov & Vojtkó, *Ann. Bot. Fenn.* 54: 230. 2017.
- Pyrus jingii** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Sorbus prunifolia* W.B.Liao & H.J.Jing, *Phytotaxa* 258: 172. 2016, not: *Pyrus prunifolia* Willd. Etymology: Named for Hui Juan Jing, who first described this species.
- Pyrus jinxianensis** (J.Q.Deng & J.Y.Hong) M.F.Fay & Christenh., *comb. nov.* Basionym: *Malus jinxianensis* J.Q.Deng & J.Y.Hong, *Acta Phytotax. Sin.* 25: 326. 1987.
- Pyrus jiulongjiangensis** (P.C.Huang & K.M.Li) M.F.Fay & Christenh., *comb. nov.* Basionym: *Raphiolepis jiulongjiangensis* P.C.Huang & K.M.Li, *J. Nanjing Forest. Univ.* 13: 85. 1989.
- Pyrus joannis** (Kárpáti) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus joannis* Kárpáti, *Bot. Közlem.* 52: 140. 1966;
- Pyrus juno** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Sorbus kongboensis* McAll., *Gen. Sorbus*: 235. 2005, not: *Pyrus kongboensis* (G.Klotz) M.F.Fay & Christenh. Etymology: Named for Juno, an Ancient Roman goddess of childbirth and marriage.
- Pyrus jupiter** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Photinia oblongifolia* Standl., *Publ. Field Columb. Mus., Bot. Ser.* 4: 210. 1929, not: *Pyrus oblongifolia* Spach. Etymology: This species is named for the planet Jupiter and the Roman God of the same name.
- Pyrus jurana** (Gand.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster juranus* Gand., *Fl. Lyon.*: 87. 1875.
- Pyrus kaganensis** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster kaganensis* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 15: 541. 1966.
- Pyrus kamschatcensis** (Komarov) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus kamschatcensis* Komarov, *Bot. Mater. Gerb. Glavn. Bot. Sada R.S.F.S.R.* 2: 135. 1921.
- Pyrus kangdingensis** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster kangdingensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 314. 2009.
- Pyrus karatavica** (Pojark.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster karatavicus* Pojark., *Nov. Syst. Inst. Bot. Acad. Sci. USSR* 21: 184. 1961.
- Pyrus karchungii** (Rushforth) M.F.Fay & Christenh.,

- comb. nov.** Basionym: *Sorbus karchungii* Rushforth, *Int. Dendrol. Soc. Year Book* 2009: 81. 2010.
- Pyrus karpatii (Boros) M.F.Fay & Christenb., comb. nov.** Basionym: *Sorbus karpatii* Boros, *Agrártud. Egyet. Kert- Szölégazdaság. Karának Közlem.* 13: 153. 1949.
- Pyrus kaschkarovii (Pojark.) M.F.Fay & Christenb., comb. nov.** Basionym: *Cotoneaster kaschkarovii* Pojark., *Not. Syst. Inst. Bot. Acad. Sci USSR* 21: 194. 1961.
- Pyrus ×kawashiroi (Murata) M.F.Fay & Christenb., comb. nov.** Basionym: *Sorbus kawashiroi* Murata, *Acta Phytotax. Geobot.* 35: 36. 1984.
- Pyrus keenanii (Rushforth) M.F.Fay & Christenb., comb. nov.** Basionym: *Sorbus keenanii* Rushforth, *Int. Dendrol. Soc. Year Book* 2011: 92. 2012.
- Pyrus kerstanii (G.Klotz) M.F.Fay & Christenb., comb. nov.** Basionym: *Cotoneaster kerstanii* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 21: 1010. 1972.
- Pyrus keszthelyensis (Somlyay & Sennikov) M.F.Fay & Christenb., comb. nov.** Basionym: *Sorbus keszthelyensis* Somlyay & Sennikov, *Ann. Bot. Fenn.* 53: 368. 2016.
- Pyrus ×kewensis (K.J.W.Hensen) M.F.Fay & Christenb., comb. nov.** Basionym: *Sorbus ×kewensis* K.J.W.Hensen, *Dendroflora* 3: 67. 1966.
- Pyrus khumbuensis (McAll.) M.F.Fay & Christenb., comb. nov.** Basionym: *Sorbus khumbuensis* McAll., *Gen. Sorbus* : 234. 2005.
- Pyrus kingdonii (J.Fryer & B.Hylmö) M.F.Fay & Christenb., comb. nov.** Basionym: *Cotoneaster kingdonii* J.Fryer & B.Hylmö, *New Plantsman* 8: 237. 2001.
- Pyrus kirghisorum (Al.Fed. & Fed.) M.F.Fay & Christenb., comb. nov.** Basionym: *Malus kirghisorum* Al.Fed. & Fed., *Plodovye lesa juzhnoi Kirgizii i ich ispolsovanie*: 220. 1949.
- Pyrus kitaibeliana (Baksay & Kárpáti) M.F.Fay & Christenb., comb. nov.** Basionym: *Sorbus kitaibeliana* Baksay & Kárpáti, *Feddes Repert.* 62: 299. 1960.
- Pyrus kitaibeli (J.Fryer & B.Hylmö) M.F.Fay & Christenb., comb. nov.** Basionym: *Cotoneaster kitaibeli* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide*: 314. 2009.
- Pyrus kiukiangensis (T.T.Yu) M.F.Fay & Christenb., comb. nov.** Basionym: *Sorbus kiukiangensis* T.T.Yu, *Acta Phytotax. Sin.* 8: 225. 1963.
- Pyrus klasterskyana (Kárpáti) M.F.Fay & Christenb., comb. nov.** Basionym: *Sorbus klasterskyana* Kárpáti in Bertová, *Fl. Slovenska IV/3*: 437. 1992.
- Pyrus klotzii M.F.Fay & Christenb., nom. nov.** Replaced synonym: *Cotoneaster vilmorianus* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 21: 992. 1972, not: *Pyrus xvilmoriniana* (C.Weber) M.F.Fay & Christenb. Etymology: This species is named for Gerhard Klotz, who first described it.
- Pyrus kmetiana (Kárpáti) M.F.Fay & Christenb., comb. nov.** Basionym: *Sorbus kmetiana* Kárpáti in Bertová, *Fl. Slovenska IV/3*: 440. 1992.
- Pyrus komarovii (H.Lév.) M.F.Fay & Christenb., comb. nov.** Basionym: *Viburnum komarovii* H.Lév. & Vaniot, *Repert. Spec. Nov. Regni Veg.* 9: 78. 1910. Etymology: This species occurs in North Korea.
- Pyrus kongboensis (G.Klotz) M.F.Fay & Christenb., comb. nov.** Basionym: *Cotoneaster kongboensis* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 21: 997. 1972.
- Pyrus konishii (Hayata) M.F.Fay & Christenb., comb. nov.** Basionym: *Cotoneaster konishii* Hayata, *Icon. Pl. Formosa* 3: 100. 1913.
- Pyrus kopetdagensis M.F.Fay & Christenb., nom. nov.** Replaced synonym: *Cotoneaster discolor* Pojark., *Not. Syst. Inst. Bot. Acad. USSR* 16: 116. 1954, not: *Pyrus discolor* Maxim. Etymology: This species is only found on the Kopet Dag mountain range on the border of Iran and Turkmenistan.
- Pyrus koreana M.F.Fay & Christenb., comb. nov.** Basionym: *Crataegus komarovii* Sarg., *Pl. Wilson* 1(2): 183. 1912, not: *Pyrus komarovii* (H.Lév.) M.F.Fay & Christenb. Etymology: This species occurs in North Korea, hence the name.
- Pyrus ×kovalevii (Mezhenskyj) M.F.Fay & Christenb., comb. nov.** Basionym: *×Sorbaronia kovalevii* Mezhenskyj, *Ukrain's'k. Bot. Zhurn.* 70(4): 514. 2013. (note: *Pyrus melanocarpa* × *Pyrus sambucifolia*)
- Pyrus krasnovii (Pojark.) M.F.Fay & Christenb., comb. nov.** Basionym: *Cotoneaster krasnovii* Pojark., *Not. Syst. Inst. Bot. Acad. Sci. USSR* 21: 187. 1961.
- Pyrus krymica M.F.Fay & Christenb., nom. nov.** Replaced synonym: *Cotoneaster tauricus* Pojark., *Not. Syst. Inst. Bot. Acad. Sci. USSR* 8: 138. 1940, not: *Pyrus taurica* (Zinserl.) M.F.Fay & Christenb. Etymology: This species is only found in Crimea (Krym).
- Pyrus kuanensis (J.Fryer & B.Hylmö) M.F.Fay & Christenb., comb. nov.** Basionym: *Cotoneaster kuanensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide*: 314. 2009.
- Pyrus kullensis (B.Hylmö) M.F.Fay & Christenb., comb. nov.** Basionym: *Cotoneaster kullensis* B.Hylmö, *Svensk Bot. Tidskr.* 87: 322. 1993.
- Pyrus kusnetzovii (Zinserl.) M.F.Fay & Christenb., comb. nov.** Basionym: *Sorbus kusnetzovii* Zinserl., *Fl. URSS* 9: 397. 1939.
- Pyrus kwangsiensis (H.L.Li) M.F.Fay & Christenb., comb. nov.** Basionym: *Photinia kwangsiensis* H.L.Li,

- J. Arnold Arbor. 26: 62. 1945.

**Pyrus kweitschoviensis** (G.Klotz) M.F.Fay & Christenh., comb. nov. Basionym: *Cotoneaster kweitschoviensis* G.Klotz, Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Reihe 12: 785. 1963.

**Pyrus lacei** (G.Klotz) M.F.Fay & Christenh., comb. nov. Basionym: *Cotoneaster lacei* G.Klotz, Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Reihe 15: 851. 1966.

**Pyrus lactea** (W.W.Sm.) M.F.Fay & Christenh., comb. nov. Basionym: *Cotoneaster lacteus* W.W.Sm., Not. Roy. Bot. Gard. Edinburgh 10: 23. 1917.

**Pyrus laetevirens** (Rehder & E.H.Wilson) M.F.Fay & Christenh., comb. nov. Basionym: *Cotoneaster acutifolius* Turcz. var. *laetevirens* Rehder & E.H.Wilson, Pl. Wilson. (Sargent) 1: 159. 1912.

**Pyrus lambertii** (G.Klotz) M.F.Fay & Christenh., comb. nov. Basionym: *Cotoneaster lambertii* G.Klotz, Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe 19: 343. 1970.

**Pyrus lancasteri** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov. Basionym: *Cotoneaster lancasteri* J.Fryer & B.Hylmö, New Plantsman 8: 237. 2001.

**Pyrus lancastriensis** (E.F.Warb.) M.F.Fay & Christenh., comb. nov. Basionym: *Sorbus lancastriensis* E.F.Warb., Watsonia 4: 45. 1957. (Figure 12B)

**Pyrus lanceolata** (Hu) M.F.Fay & Christenh., comb. nov. Basionym: *Rhaphiolepis lanceolata* Hu, J. Arnold Arbor. 13: 335. 1932.

**Pyrus langei** (G.Klotz) M.F.Fay & Christenh., comb. nov. Basionym: *Cotoneaster langei* G.Klotz, Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe 21: 1000. 1972.

**Pyrus lantana** M.F.Fay & Christenh., nom. nov. Replaced synonym: *Cotoneaster harrovianus* E.H.Wilson, Gard. Chron. 51: 3. 1912, not: *Pyrus harrowiana* Balf.f. & W.W.Sm. (orthographic variant). Etymology: This species resembles *Viburnum lantana* (Adoxaceae) in leaf and fruit.

**Pyrus lasiopetala** (Hayata) M.F.Fay & Christenh., comb. nov. Basionym: *Photinia lasiopetala* Hayata, Icon. Pl. Formosan. 6: 17. 1916.

**Pyrus laxiflora** (Jacq. ex Lindl.) M.F.Fay & Christenh., comb. nov. Basionym: *Cotoneaster laxiflorus* Jacq. ex Lindl., Edwards's Bot. Reg. 15: t. 1229. 1829.

**Pyrus legrei** (Cornier) M.F.Fay & Christenh., comb. nov. Basionym: *Sorbus legrei* Cornier, Bull. Mens. Soc. Linn. Lyon 78: 29. 2009.

**Pyrus leighensis** (T.C.G.Rich) M.F.Fay & Christenh., comb. nov. Basionym: *Sorbus leighensis* T.C.G.Rich, Watsonia 27: 370. 2009.

**Pyrus leiocalycya** (S.Z.Huang) M.F.Fay & Christenh., comb. nov. Basionym: *Malus leiocalycya* S.Z.Huang, London 13: 104. 1821, not: *Pyrus dubia* E.H.L.Krause.

*Guilhaia* 9: 305. 1989.

**Pyrus leptophylla** (E.F.Warb.) M.F.Fay & Christenh., comb. nov. Basionym: *Sorbus leptophylla* E.F.Warb., Watsonia 4: 44. 1957.

**Pyrus leveillei** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov. Basionym: *Cotoneaster leveillei* J.Fryer & B.Hylmö, Cotoneasters Compreh. Guid: 314. 2009.

**Pyrus leyana** (Wilmott) M.F.Fay & Christenh., comb. nov. Basionym: *Sorbus leyana* Wilmott, Proc. Linn. Soc. Lond. 146: 78. 1934.

**Pyrus lidjiangensis** (G.Klotz) M.F.Fay & Christenh., comb. nov. Basionym: *Cotoneaster lidjiangensis* G.Klotz, Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Reihe 12: 773. 1963.

**Pyrus ×liljevorsii** (T.C.G.Rich) M.F.Fay & Christenh., comb. nov. Basionym: *Sorbus ×liljevorsii* T.C.G.Rich, Nordic J. Bot. 25: 339. 2007.

**Pyrus lindleyana** (Wight & Arn.) M.F.Fay & Christenh., comb. nov. Basionym: *Photinia lindleyana* Wight & Arn., Prodr. Fl. Ind. Orient. 1: 302. 1834.

**Pyrus lingshiensis** (Rushforth) M.F.Fay & Christenh., comb. nov. Basionym: *Sorbus lingshiensis* Rushforth, Plantsman 13: 121. 1991.

**Pyrus linnaeoides** M.F.Fay & Christenh., nom. nov. Replaced synonym: *Cotoneaster rubens* W.W.Sm. var. *minimus* T.T.Yu, Acta Phytotax. Sin. 8: 220. 1963, not: *Pyrus minima* Ley. Etymology: Named for its vegetative resemblance to *Linnaea* (Caprifoliaceae).

**Pyrus lithomelo** M.F.Fay & Christenh., nom. nov. Replaced synonym: *Osteomeles glabrata* Kunth, Nov. Gen. Sp. (ed. quarto) 6: 210. 1815, not: *Pyrus glabrata* (Rehder) L.H.Bailey. Etymology: From Greek λίθος, stone and μήλο, apple.

**Pyrus llangollenica** M.F.Fay & Christenh., nom. nov. Replaced synonym: *Sorbus cuneifolia* T.C.G.Rich, Watsonia 27: 209. 2009, not: *Pyrus cuneifolia* Guss. Etymology: This species occurs near Llangollen, Wales, hence the name.

**Pyrus lochengensis** (T.T.Yu) M.F.Fay & Christenh., comb. nov. Basionym: *Photinia lochengensis* T.T.Yu, Acta Phytotax. Sin. 8: 226. 1963.

**Pyrus lonetalensis** (S.Hammel & Haynold) M.F.Fay & Christenh., comb. nov. Basionym: *Sorbus lonetalensis* S.Hammel & Haynold, Jahresh. Ges. Naturk. Württemberg 171: 79. 2015.

**Pyrus longifolia** (Decne.) M.F.Fay & Christenh., comb. nov. Basionym: *Photinia longifolia* Decne., Nouv. Arch. Mus. Par. Ser. 1, 10: 142. 1874.

**Pyrus longii** (Rushforth) M.F.Fay & Christenh., comb. nov. Basionym: *Sorbus longii* Rushforth, Plantsman 13: 117. 1991.

**Pyrus loquat** M.F.Fay & Christenh., nom. nov. Replaced synonym: *Photinia dubia* Lindl., Trans. Linn. Soc. London 13: 104. 1821, not: *Pyrus dubia* E.H.L.Krause.

Etymology: from Cantonese, lou gwat, the name for the fruit ('lu orange').

**Pyrus loriformis** (W.W.Sm.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Photinia loriformis* W.W.Sm., *Notes Roy. Bot. Gard. Edinburgh* 10: 60. 1917.

**Pyrus lucida** (Schltdl.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster lucidus* Schltdl., *Linnæa* 27: 541. 1854.

**Pyrus ludlowii** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster ludlowii* G.Klotz, *Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Reihe* 12: 775. 1963.

**Pyrus lui** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Sorbus yunnanensis* L.T.Lu, *Acta Phytotax. Sin.* 38: 279. 2000, not: *Pyrus yunnanensis* Franch. Etymology: This species is named for Ling Ti Lu, who first described it.

**Pyrus luristanica** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster luristanicus* G.Klotz, *Feddes Repert.* 76: 201. 1967.

**Pyrus luzoniensis** (Merr.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Photinia luzoniensis* Merr., *Publ. Bur. Sci. Gov. Lab.*, 17: 18. 1904.

**Pyrus macallisteri** (Rushforth) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus macallisteri* Rushforth, *Plantsman* 13: 122. 1991.

**Pyrus macrantha** (Merr.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus macrantha* Merr., *Brittonia* 4: 78. 1941.

**Pyrus maderensis** (Lowe) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus aucuparia* L. var. *maderensis* Lowe, *Man. Fl. Madeira* 1: 259. 1868.

**Pyrus madoniensis** (Raimondo, G.Castellano, Bazan & Schicchi) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus madoniensis* Raimondo, G.Castellano, Bazan & Schicchi, *Pl. Biosystems* 146(Suppl.): 347. 2012.

**Pyrus magnifica** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster magnificus* J.Fryer & B.Hylmö, *New Plantsman* 5: 138. 1998.

**Pyrus magocsyana** (Kárpáti) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus magocsyana* Kárpáti in Németh, *Acta Bot. Hung.* 52: 388. 2010.

**Pyrus maia** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Sorbus ovalis* McAll., *Gen. Sorbus*: 236. 2005, not: *Pyrus ovalis* Willd. Etymology: From Greek Máloç, May, the month when this species flowers.

**Pyrus major** (Cardot) M.F.Fay & Christenh., *comb. nov.* Basionym: *Raphiolepis major* Cardot, *Notul. Syst. (Paris)* 3: 380. 1918.

**Pyrus majoricensis** (L.Sáez & Rosselló) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster majoricensis* L.Sáez & Rosselló, *Candollea* 67: 245.

2012.

**Pyrus majuscula** (W.W.Sm.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster hebephylloides* Diels var. *majusculus* W.W.Sm., *Not. Roy. Bot. Gard. Edinburgh* 10(46): 22. 1917.

**Pyrus malipoensis** (K.C.Kuan) M.F.Fay & Christenh., *comb. nov.* Basionym: *Eriobotrya malipoensis* K.C.Kuan, *Acta Phytotax. Sin.* 8: 231. 1963.

**Pyrus mamajevii** (Knjaz.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster mamajevii* Knjaz., *Bot. Zhurn. (Moscow & Leningrad)* 92: 423. 2007.

**Pyrus mandshurica** (Maxim.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Pyrus baccata* L. var. *mandshurica* Maxim., *Bull. Acad. Imp. Sci. Saint-Pétersbourg* 19: 170. 1873. (Figure 12C)

**Pyrus margaretae** (M.Proctor) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus margaretae* M.Proctor, *Watsonia* 27: 210. 2009.

**Pyrus margittaiana** (Jáv.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus hostii* (J.Jacq. ex Host) Heynh. subsp. *margittaiana* Jáv., *Sched. Fl. Hung. Exs.* 8: 27. 1927.

**Pyrus marquandii** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster marquandii* G.Klotz, *Bull. Bot. Surv. India* 5: 209. 1963.

**Pyrus marronina** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster marroninus* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide*: 314. 2009.

**Pyrus mars** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Crataegus subfusca* Ledeb. ex Nordm., *Bull. Sci. Acad. Imp. Sci. St-Pétersbourg* 2: 313. 1837, not: *Pyrus subfusca* Regel. Etymology: This species is named for the planet Mars, in turn named for the Roman god of war.

**Pyrus matudae** (Lundell) M.F.Fay & Christenh., *comb. nov.* Basionym: *Photinia matudae* Lundell, *Contr. Univ. Michigan Herb.* 4: 7. 1940.

**Pyrus medogensis** (L.T.Lu & T.C.Ku) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus medogensis* L.T.Lu & T.C.Ku, *Acta Phytotax. Sin.* 40: 475. 2002.

**Pyrus megacarpa** (Li H.Zhou & C.Y.Wu) M.F.Fay & Christenh., *comb. nov.* Basionym: *Pleiosorbus megacarpa* Li H.Zhou & C.Y.Wu, *Acta Bot. Yunnan.* 22: 384. 2000, as 'megacarpus'.

**Pyrus megaphylla** (T.T.Yu & T.C.Ku) M.F.Fay & Christenh., *comb. nov.* Basionym: *Photinia megaphylla* T.T.Yu & T.C.Ku, *Acta Phytotax. Sin.* 18: 493. 1980.

**Pyrus meierottii** (N.Mey.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus meierottii* N.Mey., *Ber. Bayer. Bot. Ges. Sonderband*: 169. 2005.

**Pyrus meinichii** (Lindb.) M.F.Fay & Christenh., *comb.*

**nov.** Basionym: *Sorbus aucuparia* L. subsp. *meinichii* Lindeb. ex Hartman, *Handb. Skand. Fl.*, ed. 11: 271. 1879

**Pyrus meiophylla** (W.W.Sm.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster glaucophyllus* Franch. var. *meiophyllum* W.W.Sm., *Not. Roy. Bot. Gard. Edinburgh* 10: 21. 1917, as '*meiophylla*'.

**Pyrus mekongensis** (Cardot) M.F.Fay & Christenh., *comb. nov.* Basionym: *Rhaphiolepis indica* (L.) Lindl. var. *mekongensis* Cardot, *Notul. Syst. (Paris)* 3: 380. 1918.

**Pyrus melanion** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Cotoneaster vulgaris* Lindl. var. *melanocarpus* Ledeb., *Fl. Altaic.* 2: 219. 1830, as '*melanocarpa*', not: *Pyrus melanocarpa* (Michx.) Willd. Etymology: Named for Μελανίων (also known as Hippomenes), a Calydonian hunstman in Greek mythology, who used golden apples to distract Atalanta so he could win the race and marry her.

**Pyrus melanotricha** (Franch.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster buxifolius* Lindl. f. *melanotrichus* Franch., *Pl. Delavay.*: 224. 1890.

**Pyrus mercurius** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Pyrus aria* (L.) Ehrh. var. *obtusifolia* DC., *Prodr.* 2: 636. 1825, not: *Pyrus obtusifolia* (Pers.) M.F.Fay & Christenh. Etymology: Named for the planet Mercury.

**Pyrus mergenthaleriana** (N.Mey.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus mergenthaleriana* N.Mey., *Ber. Bayer. Bot. Ges. Sonderband* : 154. 2005.

**Pyrus merguiensis** (J.E.Vidal) M.F.Fay & Christenh., *comb. nov.* Basionym: *Eriobotrya merguiensis* J.E.Vidal, *Adansonia* sér. 2, 5: 563. 1965.

**Pyrus merula** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Sorbus rockii* P.D.Sell, *Fl. Gr. Brit. Ireland* 2: 521. 2014, not: *Pyrus rockii* (Rehder) M.F.Fay & Christenh. Etymology: From Latin for the blackbird (*Turdus merula*).

**Pyrus meuseilii** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster meuseilii* G.Klotz, *Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Reihe* 12: 777. 1963.

**Pyrus mexicana** (Baill.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Chamaemeles mexicana* Baill., *Adansonia* 9: 148. 1869.

**Pyrus meyeri** (Pojark.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster meyeri* Pojark., *Not. Syst. Inst. Bot. Acad. Sci. USSR* 17: 185. 1955.

**Pyrus microphylla** (Wall. ex Lindl.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster microphyllus* Wall. ex Lindl., *Edwards's Bot. Reg.* 13: t. 1114. 1827 = *Pyrus microphylla* Wall., *nom. inval.*

*nom. nud.* (Figure 12D)

**Pyrus migarica** (Zinsler.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus migarica* Zinsler., *Fl. URSS* 9: 398. 1939.

**Pyrus milensis** (M.Lepší, K.Boublik, P.Lepší & P.Vít) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus milensis* M.Lepší, K.Boublik, P.Lepší & P.Vít, *Preslia* 80: 235. 2008.

**Pyrus milkedandaensis** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster milkedandaensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide*: 314. 2009.

**Pyrus miniata** (Rehder & E.H.Wilson) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster zabelii* C.K.Schneid. var. *miniatus* Rehder & E.H.Wilson, *Pl. Wilson. (Sargent)* 3(3): 430. 1917.

**Pyrus minuta** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster minutus* G.Klotz, *Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Reihe* 12: 763. 1963.

**Pyrus mirabilis** (G.Klotz & Krügel) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster mirabilis* G.Klotz & Krügel, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 32: 909. 1983, as hybrid.

**Pyrus mitschurinii** (A.K.Skvortsov & Maitul.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Aronia mitschurinii* A.K.Skvortsov & Maitul., *Byull. Glavn. Bot. Sada (Moscow)* 126: 40. 1982.

**Pyrus mongolica** (Pojark.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster mongolicus* Pojark., *Not. Syst. Inst. Bot. Acad. Sci. USSR* 17: 196. 1955.

**Pyrus monopyrena** (W.W.Sm.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster hebephylloides* Diels var. *monopyrenus* W.W.Sm., *Not. Roy. Bot. Gard. Edinburgh* 10: 23. 1917.

**Pyrus ×monstrosa** (Zabel) M.F.Fay & Christenh., *comb. nov.* Basionym: *Aronia ×monstrosa* Zabel in Beissn. & al., *Handb. Laubholzben.* 1: 677. 1903. (note: *Pyrus arbutifolia* × *Pyrus americana*).

**Pyrus montisalpae** (Bernátová & Májkovský) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus montisalpae* Bernátová & Májkovský, *Biologia (Bratislava)* 58: 788. 2003.

**Pyrus moravica** (M.Lepší & P.Lepší) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus moravica* M.Lepší & P.Lepší, *Preslia* 87: 133. 2015.

**Pyrus morrisiana** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Sorbus japonica* Siebold, *Verh. Batav. Genootsch. Kunst.* 12: 67. 1830, not: *Pyrus japonica* Thunb. Etymology: This species is named in memory of Amy Morris, who encouraged Michael Fay to pursue a career in botany.

**Pyrus morrisonensis** (Hayata) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster morrisonensis*

- Hayata, *Icon. Pl. Formosa* 5: 62. 1915. (Figure 12E)
- Pyrus morula** (Pojark.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster morulus* Pojark., *Not. Syst. Inst. Bot. Acad. Sci. USSR* 21: 177 1961.
- Pyrus ×motley** (T.C.G.Rich) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus ×motleyi* T.C.G.Rich, *Watsonia* 27: 211. 2009. (note: *Pyrus aucuparia* × *Pyrus leyana*).
- Pyrus moupinensis** (Franch.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster moupinensis* Franch., *Nouv. Arch. Mus. Hist., ser. 2, 8:* 224. 1885.
- Pyrus mucronata** (Franch.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster mucronatus* Franch., *Pl. Delavay.* 3: 223. 1890.
- Pyrus mulica** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Sorbus muliensis* McAll., *Gen. Sorbus:* 231. 2005, not: *Pyrus muliensis* (G.Klotz) M.F.Fay & Christenh. Etymology: This species occurs in Muli, China.
- Pyrus muliensis** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster muliensis* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 17: 336. 1968.
- Pyrus multiflora** (Bunge) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster multiflorus* Bunge in Lebed., *Fl. Altaica* 2: 220. 1830.
- Pyrus multijuga** (Koehne) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus multijuga* Koehne, *Pl. Wilson. (Sargent)* 1: 472. 1913.
- Pyrus munda** (Koehne) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus munda* Koehne, *Pl. Wilson. (Sargent)* 1: 469. 1913.
- Pyrus nagaensis** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster nagaensis* G.Klotz, *Bull. Bot. Surv. India* 5: 212. 1963.
- Pyrus naninicens** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster naninicens* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide*: 315. 2009.
- Pyrus nanshan** (M.Vilm. ex Mottet) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster nanshan* M.Vilm. ex Mottet, *Arbres Arbust. Ornam. Pleine Terre* 207: 1925, as 'Nan-Shan'.
- Pyrus nantouensis** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster nantouensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide*: 315. 2009.
- Pyrus naoujanensis** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster naoujanensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide*: 315. 2009.
- Pyrus narynensis** (Tkatsch. ex J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster narynensis* Tkatsch. ex J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide*: 315. 2009.
- Pyrus nedoluzhkoi** (Tzvelev) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster nedoluzhkoi* Tzvelev, *Bot. Zhurn. (Moscow & Leningrad)* 87: 115. 2002.
- Pyrus needhamii** (Rushforth) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus needhamii* Rushforth, *Bot. Mag.* 27: 378. 2010.
- Pyrus nefedovii** (Galushko) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster nefedovii* Galushko, *Drev. Kustarnik. Severn. Kavkaza* : 216. 1967.
- Pyrus neglecta** (Hedl.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus arranensis* [unranked] *neglecta* Hedl., *Skr. Vidensk.-Selsk. Kristiania. Mat-Naturvidensk. Kl.* 1914: 181. 1915.
- Pyrus neimongolica** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Cotoneaster dielsianus* E.Pritz. ex Diels var. *globosus* Hurs., *Acta Phytotax. Geobot.* 13: 233. 1943, not: *Pyrus globosa* (T.T.Yu & H.T.Tsai) M.F.Fay & Christenh. Etymology: Named for the Chinese autonomous region of Nei Mongol or Inner Mongolia, where this species is found.
- Pyrus neoantoninae** (A.Vassil.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster neoantoninae* A.Vassil., *Fl. Kazakhstana* 6: 444. 1963.
- Pyrus neopinnatifida** (P.D.Sell) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus neopinnatifida* P.D.Sell in Sell & Murrell, *Fl. Gr. Brit. Ireland* 2: 523. 2014.
- Pyrus neopopovii** (Czerep.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster neopopovii* Czerep., *Sosud. Rast. SSSR*: 433. 1981.
- Pyrus nepalensis** (André) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster nepalensis* André, *Illust. Hort.* 22: 95. 1875, not: *Pyrus nepalensis* Loudon, *nom. inval., nom. nud., nor: Pyrus nepalensis* Hook.f., *nom. inval. pro syn.*
- Pyrus neptunus** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Sorbus arguta* T.T.Yu, *Acta Phytotax. Sin.* 8: 223. 1963, not: *Pyrus arguta* (Wall. ex Lindl.) M.F.Fay & Christenh. Etymology: This species is named for the planet Neptune.
- Pyrus newryensis** (Barbier) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster newryensis* Barbier, *Barbier & Son nursery trade list, Orléans, France*: 121. 1908.
- Pyrus newtoniana** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Sorbus aestivalis* Koehne, *Pl. Wilson. (Sargent)* 1: 469. 1913, not: *Pyrus aestivalis*

Lamotte. Etymology: Named for Isaac Newton, who is said to have been inspired to formulate his theory of gravitation by watching an apple fall from a tree.

**Pyrus niitakayamensis (Hayata) M.F.Fay & Christenh., comb. nov.** Basionym: *Photinia niitakayamensis* Hayata, *J. Coll. Sci. Imp. Univ. Tokyo* 30(Art. 1): 103. 1911.

**Pyrus nitens (Rehder & E.H.Wilson) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster nitens* Rehder & E.H.Wilson, *Pl. Wilson. (Sargent)* 1: 156. 1912.

**Pyrus nitidifolia (C.Marquand) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster nitidifolius* C.Marquand, *Hooker's Icon. Pl.* 32(2): pl. 3145. 1930. Replaced synonym: *Cotoneaster glomerulatus* W.W.Sm., *Not. Roy. Bot. Gard. Edinburgh* 10: 21. 1917, not: *Pyrus glomerulata* (Koehne) Bean.

**Pyrus nitidus (Jacq.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster nitidus* Jacq., *J. Soc. Imp. Centr. Hort.* 3: 516. 1857. Replaced synonym: *Cotoneaster rotundifolius* Wall. ex Lindl., *Edwards's Bot. Reg.* 15: t. 1229. 1829, not: *Pyrus rotundifolia* Moench.

**Pyrus nohelii (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster nohelii* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 315. 2009.

**Pyrus norvegica M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Sorbus lancifolia* Hedl., *Skr. Vidensk.-Selsk. Kristiania. Mat.-Naturvidensk. Kl.* 1911(6): 166. 1912, not: *Pyrus lancifolia* (Rehder) L.H.Bailey. Etymology: This species is found in Norway, hence the name.

**Pyrus notabilis (G.Klotz) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster notabilis* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 21: 972. 1972.

**Pyrus nummularia (Fisch. & C.A.Mey.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster nummularius* Fisch. & C.A.Mey., *Ind. Semin. Hort. Bot. Petrop.* 2: 34. 1835.

**Pyrus nummularioides (Pojark.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster nummularioides* Pojark., *Not. Syst. Inst. Bot. Acad. Sci. USSR* 16: 128. 1954.

**Pyrus oblanceolata (Rehder & E.H.Wilson) M.F.Fay & Christenh., comb. nov.** Basionym: *Stranvaesia russia* var. *oblanceolata* Rehder & E.H.Wilson, *Pl. Wilson.* 1: 193. 1913.

**Pyrus obliqua (Stapf) M.F.Fay & Christenh., comb. nov.** Basionym: *Photinia obliqua* Stapf, *Bot. Mag.* 149: sub t. 9008. 1924.

**Pyrus obovata (W.W.Sm.) M.F.Fay & Christenh., comb. nov.** Basionym: *Eriobotrya obovata* W.W.Sm., *Notes*

*Roy. Bot. Gard. Edinburgh* 10: 29. 1917.

**Pyrus obscura (Rehder & E.H.Wilson) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster obscurus* Rehder & E.H.Wilson, *Pl. Wilson. (Sargent)* 1: 161. 1912.

**Pyrus obtusa (Wall. ex Lindl.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster obtusus* Wall. ex Lindl., *Edwards's Bot. Reg.* 15: t. 1229. 1829.

**Pyrus obtusifolia (Pers.) M.F.Fay & Christenh., comb. nov.** Basionym: *Crataegus obtusifolia* Pers., *Syn. Pl.* 2: 37. 1806.

**Pyrus obtusisepala (Gand.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster obtusisepalus* Gand., *Fl. Lyon.*: 87. 1875.

**Pyrus ochracea (Hand.-Mazz.) M.F.Fay & Christenh., comb. nov.** Basionym: *Eriobotrya ochracea* Hand.-Mazz., *Symb. Sin.* 7: 476. 1933.

**Pyrus ogisui (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster ogisui* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 316. 2009.

**Pyrus oleaster M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Cotoneaster shansiensis* J.Fryer & B.Hylmö, *New Plantsman* 5: 135. 1998, not: *Pyrus shansiensis* Nakai. Etymology: This species superficially resembles an oleaster, *Elaeagnus* (Elaeagnaceae).

**Pyrus oligantha (Pojark.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster oliganthus* Pojark., *Not. Syst. Inst. Bot. Acad. Sci. USSR* 8: 141. 1940.

**Pyrus olivacea (McAll.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus olivacea* McAll., *Gen. Sorbus*: 232. 2005.

**Pyrus omphrophila (Hand.-Mazz.) M.F.Fay & Christenh., comb. nov.** Basionym: *Malus omphrophila* Hand.-Mazz., *Anz. Akad. Wiss. Wien, Math.-Naturwiss. Kl.* 63: 8. 1926.

**Pyrus omissa (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster omissus* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 316. 2009.

**Pyrus orbicularis (Schltdl.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster orbicularis* Schltdl., *Linnaea* 27: 544. 1854.

**Pyrus ormastonii (G.Klotz) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster ormastonii* G.Klotz, *Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Reihe* 15: 850. 1866.

**Pyrus osteomeles M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Osteomeles schwerinii* C.K.Schneid., *III. Handb. Laubholzk.* 1: 763. 1906, as 'schweriniae', not: *Pyrus schwerinii* (C.K.Schneid.) M.F.Fay & Christenh. Etymology: Named for the genus *Osteomeles*, now included in *Pyrus*.

**Pyrus ottoschwartzii (G.Klotz) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster ottoschwartzii*

- G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 24: 402. 1975.
- Pyrus ovata** (Pojark.) M.F.Fay & Christenh., *comb. nov.*  
Basionym: *Cotoneaster ovatus* Pojark., *Not. Syst. Inst. Bot. Acad. Sci. USSR* 16: 111. 1954.
- Pyrus palcensis** (C.K.Schneid.) M.F.Fay & Christenh., *comb. nov.*  
Basionym: *Hesperomeles palcensis* C.K.Schneid., *Bot. Jahrb. Syst.* 42: 86. 1908.
- Pyrus pallasiana** (Juz.) M.F.Fay & Christenh., *comb. nov.*  
Basionym: *Malus pallasiana* Juz., *Fl. URSS* 9: 370. 1939.
- Pyrus pallescens** (Rehder) M.F.Fay & Christenh., *comb. nov.*  
Basionym: *Sorbus pallescens* Rehder, *Pl. Wilson. (Sargent)* 2: 266. 1915.
- Pyrus pangiensis** (G.Klotz) M.F.Fay & Christenh., *comb. nov.*  
Basionym: *Cotoneaster pangiensis* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 19: 342. 1970.
- Pyrus pannona** (Franch.) M.F.Fay & Christenh., *comb. nov.*  
Basionym: *Cotoneaster pannonus* Franch., *Pl. Delavay.* 3: 223. 1890.
- Pyrus pannonica** (Kárpáti) M.F.Fay & Christenh., *comb. nov.*  
Basionym: *Sorbus pannonica* Kárpáti, *Borbásia Nova* 25: 10. 1944.
- Pyrus paradisi** M.F.Fay & Christenh., *nom. nov.*  
Replaced synonym: *Malus orientalis* Uglitzk., *Trudov Sev.-Kavk. Inst. Spets. Tekhn. Kul'tur* 1: 18. 1932, not: *Pyrus orientalis* Pall. Etymology: Named for the 'apple of paradise'.
- Pyrus paradoxa** (G.Klotz) M.F.Fay & Christenh., *comb. nov.*  
Basionym: *Cotoneaster paradoxus* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 27: 24. 1978.
- Pyrus paris** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Malus dasypylla* Borkh., *Theor. Prakt. Handb. Forstbot.* 2: 1269. 1803, not: *Pyrus dasypylla* Bluff & Fingerh. Etymology: Named for Πάρις, Prince of Troy. In Greek mythology (Judgment of Paris), Eris was not invited at the marriage of Peleus and Thetis. She was not amused, so she gave Paris a golden apple inscribed with the word καλλίστη (kallistē, "for the fairest") to take to the wedding and give to the most beautiful of all goddesses, which did not go down well.
- Pyrus parkeri** (G.Klotz) M.F.Fay & Christenh., *comb. nov.*  
Basionym: *Cotoneaster parkeri* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 15: 850. 1966, as hybrid.
- Pyrus parnassica** (Boiss. & Heldr.) M.F.Fay & Christenh., *comb. nov.*  
Basionym: *Cotoneaster parnassicus* Boiss. & Heldr., *Diagn. Pl. Orient.* 2: 48. 1856.
- Pyrus parva** (McAll.) M.F.Fay & Christenh., *comb. nov.*  
Basionym: *Sorbus parva* McAll., *Gen. Sorbus:* 234. 2005.
- Pyrus parvifructa** (McAll.) M.F.Fay & Christenh., *comb. nov.*  
Basionym: *Sorbus parvifructa* McAll., *Gen. Sorbus:* 231. 2005.
- Pyrus parviloba** (T.C.G.Rich) M.F.Fay & Christenh., *comb. nov.*  
Basionym: *Sorbus parviloba* T.C.G.Rich, *Watsonia* 27: 306. 2009.
- Pyrus pauca** (M.Lepší & P.Lepší) M.F.Fay & Christenh., *comb. nov.*  
Basionym: *Sorbus pauca* M.Lepší & P.Lepší, *Preslia* 85: 69. 2013.
- Pyrus paucinervia** (Merr.) M.F.Fay & Christenh., *comb. nov.*  
Basionym: *Sorbus paucinervia* Merr., *Brittonia* 4: 75. 1941.
- Pyrus paxiana** (Jáv.) M.F.Fay & Christenh., *comb. nov.*  
Basionym: *Sorbus paxiana* Jáv., *Magyar Bot. Lapok* 25: 89. 1927.
- Pyrus peduncularis** (Boiss.) M.F.Fay & Christenh., *comb. nov.*  
Basionym: *Cotoneaster peduncularis* Boiss., *Diagn. Pl. Orient.* 3: 8. 1943.
- Pyrus pekarovae** (Májovský & Bernátová) M.F.Fay & Christenh., *comb. nov.*  
Basionym: *Sorbus pekarovae* Májovský & Bernátová, *Biologia (Bratislava)* 51: 25. 1996.
- Pyrus pelsoensis** (C.Németh) M.F.Fay & Christenh., *comb. nov.*  
Basionym: *Sorbus pelsoensis* C.Németh, *Stud. Bot. Hung.* 46: 50. 2015.
- Pyrus pendula** M.F.Fay & Christenh., *nom. nov.*  
Replaced synonym: *Cotoneaster glaucophyllus* Franch. var. *vestitus* W.W.Sm., *Not. Roy. Bot. Gard. Edinburgh* 10: 21. 1917, not: *Pyrus vestita* Wall. ex G.Don. Etymology: This species has pendent branches.
- Pyrus perlonga** (Meierott) M.F.Fay & Christenh., *comb. nov.*  
Basionym: *Sorbus perlonga* Meierott, *Ber. Bayer. Bot. Ges. Sonderband*: 187. 2005.
- Pyrus perpusilla** (C.K.Schneid.) M.F.Fay & Christenh., *comb. nov.*  
Basionym: *Cotoneaster horizontalis* Decne var. *perpusillus* C.K.Schneid., *Ill. Handb. Laubholzk.* 1: 745. 1906.
- Pyrus persica** (Hedl.) M.F.Fay & Christenh., *comb. nov.*  
Basionym: *Sorbus persica* Hedl., *Kongl. Svenska Vetensk.-Akad. Handl.* 35: 70. 1901.
- Pyrus petiolata** (Hook.f.) M.F.Fay & Christenh., *comb. nov.*  
Basionym: *Eriobotrya petiolata* Hook.f., *Fl. Brit. India* 2: 370. 1878.
- Pyrus philippinensis** (S.Vidal) M.F.Fay & Christenh., *comb. nov.*  
Basionym: *Eriobotrya philippinensis* S.Vidal, *Revis. Pl. Vasc. Filip.*: 123. 1886.
- Pyrus photinia** M.F.Fay & Christenh., *nom. nov.*  
Replaced synonym: *Photinia salicifolia* C.Presl., *Abh. Königl. Böhm. Ges. Wiss. ser. 5, 6:* 564. 1851, not: *Pyrus salicifolia* Pall., nor: *Pyrus arbutifolia* (L.) Lf. Etymology: This species is named for the former

- genus *Photinia*, now included in *Pyrus*. (Figure 12E)
- Pyrus pilosicalyx* (T.T.Yu) M.F.Fay & Christenh., comb. nov.** Basionym: *Photinia pilosicalyx* T.T.Yu, *Acta Phytotax. Sin.* 8: 231. 1963.
- Pyrus piranga* M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Cotoneaster cardinalis* J.Fryer & B.Hylm  , *Cotoneasters Compreh. Guide*: 309. 2009, not: *Pyrus cardinalis* Poit. & Turpin. Etymology: The fruit of this species is as red as a tanager (genus *Piranga*), hence the name.
- Pyrus platyphylla* (Merr.) M.F.Fay & Christenh., comb. nov.** Basionym: *Eriobotrya platyphylla* Merr., *Brittonia* 4: 80. 1941.
- Pyrus pluriflora* (G.Klotz) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster pluriflorus* G.Klotz, *Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Reihe* 12: 781. 1963.
- Pyrus pluto* M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Stranvaesia microphylla* Vidal, *Notul. Syst. (Paris)* 13: 300. 1949, not: *Pyrus microphylla* (Wall. ex Lindl.) M.F.Fay & Christenh. Etymology: This species is named for the dwarf planet Pluto.
- Pyrus podocarpifolia* (T.T.Yu) M.F.Fay & Christenh., comb. nov.** Basionym: *Photinia podocarpifolia* T.T.Yu, *Acta Phytotax. Sin.* 8: 230. 1963.
- Pyrus poilanei* (J.E.Vidal) M.F.Fay & Christenh., comb. nov.** Basionym: *Eriobotrya poilanei* J.E.Vidal, *Adansonia s  r.* 2, 5: 557. 1965.
- Pyrus polgariana* (C.N  meth) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus polgariana* C.N  meth, *Acta Bot. Hung.* 54: 132. 2012.
- Pyrus poluninii* (G.Klotz) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster poluninii* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 27: 21. 1978.
- Pyrus polyanthema* (E.L.Wolf) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster polyanthemus* E.L.Wolf, *Mitt. Deutsch. Dendrol. Gesell.* 34: 325. 1924.
- Pyrus pomum* M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Pyrus malus* L. var. *sylvestris* L., *Sp. Pl.* 1: 479. 1753, not: *Pyrus sylvestris* Moench. Etymology: From Latin *pomum*, apple or fruit. (Figure 13A)
- Pyrus pontica* (Zaik.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus pontica* Zaik., *Bot. Zhurn. (Moscow & Leningrad)* 67: 1293. 1982.
- Pyrus pontis-satanae* (M.Lep   & P.Lep  ) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus pontis-satanae* M.Lep   & P.Lep  , *Preslia* 87: 137. 2015, as '*pontis-satani*'.
- Pyrus popovii* (Pojark.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster popovii* Pojark., *Fl. Tadzhikskoi SSR* 4: 537. 1975.
- Pyrus porrigentiformis* (E.F.Warb.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus porrigentiformis* E.F.Warb., *Watsonia* 4: 45. 1957.
- Pyrus portae-bohemicae* (M.Lep  , P.Lep  , P.V   & K.Boubl  k) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus portae-bohemicae* M.Lep  , P.Lep  , P.V   & K.Boubl  k, *Preslia* 81: 72. 2009.
- Pyrus potaninii* (Pojark.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster potaninii* Pojark., *Not. Syst. Inst. Bot. Acad. Sci. USSR* 21: 202. 1961.
- Pyrus poteriifolia* (Hand.-Mazz.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus poteriifolia* Hand.-Mazz., *Anz. Akad. Wiss. Wien, Math.-Naturwiss. Kl.* 62: 223. 1925.
- Pyrus pourthiae* M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Pourthiae lucida* Decne., *Nouv. Arch. Mus. Par. Ser. 1, 10:* 148. 1874, not: *Pyrus lucida* (Schlehd.) M.F.Fay & Christenh. Etymology: This species is named for the former genus *Pourthiae*, now included in *Pyrus*.
- Pyrus xpozdnjakovii* (Pojark.) M.F.Fay & Christenh., comb. nov.** Basionym: *xSorbocotoneaster pozdnjakovii* Pojark., *Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk S.S.R.* 15: 93. 1953. (= *P. sibirica* x *P. melanocarpa*)
- Pyrus prinoides* (Rehder & E.H.Wilson) M.F.Fay & Christenh., comb. nov.** Basionym: *Eriobotrya prinoides* Rehder & E.H.Wilson, *Pl. Wilson. (Sargent)* 1(2): 194. 1912.
- Pyrus prionophylla* (Franch.) M.F.Fay & Christenh., comb. nov.** Basionym: *Eriobotrya prionophylla* Franch., *Pl. Delevay.* 225. 1890.
- Pyrus pritzellii* (C.K.Schneid.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster rugosus* E.Pritz. ex Diels var. *pritzellii* C.K.Schneid., *III. Handb. Laubholzk.* 1: 758. 1906. Replaced synonym: *Cotoneaster rugosus* E.Pritz. ex Diels var. *henryanus* C.K.Schneid., *III. Handb. Laubholzk.* 1: 758. 1906, not: *Pyrus henryana* Poit. & Turpin
- Pyrus xproctoriana* (T.C.G.Rich) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus xproctoriana* T.C.G.Rich, *Watsonia* 27: 370. 2009.
- Pyrus procumbens* (G.Klotz) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster procumbens* G.Klotz, *Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Reihe* 6: 982. 1957.
- Pyrus prostrata* (Baker) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster prostratus* Baker, *Saunders Ref. Bot.* 1: 53. 1869.
- Pyrus pruinosa* (G.Klotz) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster pruinosis* G.Klotz, *Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-*

*Naturwiss. Reihe 15:* 533. 1966.

**Pyrus przewalskii (Pojark.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster przewalskii* Pojark., Not. Syst. Inst. Bot. Acad. Sci. USSR 21: 196. 1961.

**Pyrus pseudoambigua (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster pseudoambiguus* J.Fryer & B.Hylmö, Watsonia 21: 337. 1997.

**Pyrus pseudobakonyensis (Kárpáti) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus pseudobakonyensis* Kárpáti, Hung. Acta Biol. 1: 117. 1949.

**Pyrus pseudofennica (E.F.Warb.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus pseudofennica* E.F.Warb., Watsonia 4: 43. 1957.

**Pyrus pseudohupehensis (McAll.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus pseudohupehensis* McAll., Gen. Sorbus: 231. 2005.

**Pyrus pseudolatifolia (Boros) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus pseudolatifolia* Boros, Mitt. Kgl. Ungar. Gartenb.-Lehranst. 3: 51. 1937.

**Pyrus pseudomeinichii (Ashley Robertson) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus pseudomeinichii* Ashley Robertson, Watsonia 26: 9. 2006.

**Pyrus pseudoobscura (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster pseudoobscurus* J.Fryer & B.Hylmö, *Cotoneasters* Compreh. Guide: 316. 2009.

**Pyrus pseudosemiincisa (Boros) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus pseudosemiincisa* Boros, Mitt. Kgl. Ungar. Gartenb.-Lehranst. 3: 53. 1937.

**Pyrus pseudothuringiaca (Düll) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus pseudothuringiaca* Düll in N.Mey., Ber. Bayer. Bot. Ges. Sonderband: 93. 2005.

**Pyrus pseudovertensis (Boros) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus pseudovertensis* Boros, Mitt. Kgl. Ungar. Gartenb.-Lehranst. 3: 53. 1937.

**Pyrus pseudovilmorinii (McAll.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus pseudovilmorinii* McAll., Gen. Sorbus: 235. 2005.

**Pyrus pteridophylla (Hand.-Mazz.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus pteridophylla* Hand.-Mazz., Symb. Sin. 7: 470. 1933.

**Pyrus puellarum (Meierott) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus puellarum* Meierott, Ber. Bayer. Bot. Ges. Sonderband: 190. 2005.

**Pyrus pulchra (N.Mey.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus pulchra* N.Mey., Ber. Bayer. Bot. Ges. Sonderband: 106. 2005.

**Pyrus punjabica M.F.Fay & Christenh., nom. nov.**

Replaced synonym: *Cotoneaster obovatus* Wall. ex Dunn, Bull. Misc. Inform. Kew 1921(3): 119. 1921, not: *Pyrus obovata* (W.W.Sm.) M.F.Fay & Christenh. Etymology: This is a species found in the Punjab, India, hence the name.

**Pyrus purpurascens (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster purpurascens* J.Fryer & B.Hylmö, New Plantsman 8: 228. 2001.

**Pyrus pyrenaica (Gand.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster pyrenaicus* Gand., Dec. Pl. Nov. 1: 8. 1875.

**Pyrus pyrrhula M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Aria mougeotii* (Soy.-Will. & Godr.) Fourr. var. *austriaca* Beck, Fl. Nieder-Österreich 2(1): 714. 1892., not: *Pyrus austriaca* A.Kern. Etymology: From Greek πυρός, meaning 'flame coloured', 'the colour of fire' or simply 'red', referring to the fruits.

**Pyrus qingshuiiana M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Cotoneaster chingshuiensis* Kun C.Chang & Chih C.Wang, Taiwania 56: 126. 2011, not: *Pyrus chingshuiensis* (T.Shimizu) M.F.Fay & Christenh. Etymology: This species is found in Quinshui, China.

**Pyrus qungbixiensis (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster qungbixiensis* J.Fryer & B.Hylmö, J. Bot. Res. Inst. Texas 2: 53. 2008.

**Pyrus raboutensis (Flinck, J.Fryer, Garraud, B.Hylmö & J.Zeller) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster raboutensis* Flinck, J.Fryer, Garraud, B.Hylmö & J.Zeller, Bull. Mens. Soc. Linn. Lyon 67: 276. 1998.

**Pyrus racemiflora (Desf.) M.F.Fay & Christenh., comb. nov.** Basionym: *Mespileus racemiflora* Desf., Tabl. École Bot., ed. 3 (Cat. Pl. Horti Paris.) : 409. 1829.

**Pyrus radicans (Dammer ex C.K.Schneid.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster dammeri* C.K.Schneid. var. *radicans* Dammer ex C.K.Schneid., III. Handb Laubholzh. 1: 761. 1906.

**Pyrus randaieneis (Hayata) M.F.Fay & Christenh., comb. nov.** Basionym: *Pyrus aucuparia* (L.) Gaertn. var. *randaieneis* Hayata, J. Coll. Sci., Imp. Univ. Tokyo 30: 98. 1911.

**Pyrus rannensis (B.Hylmö & J.Fryer) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster rannensis* B.Hylmö & J.Fryer, Acta Bot. Fenn. 162: 183. 1999.

**Pyrus ratisbonensis (N.Mey.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus ratisbonensis* N.Mey., Ber. Bayer. Bot. Ges. Sonderband: 158. 2005.

**Pyrus rautii M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Sorbus prattii* Koehne, Pl. Wilson. (Sargent) 1: 468. 1913, not: *Pyrus prattii* Hemsl. Etymology:

Named for the Finnish thundergod Rauni or Ukko, who is often associated with a rowan tree (*Pyrus aucuparia*, Rosaceae).

***Pyrus raupingensis* (K.C.Kuan) M.F.Fay & Christenh., comb. nov.** Basionym: *Photinia raupingensis* K.C.Kuan, Acta Phytotax. Sin. 8: 228. 1963.

***Pyrus redliana* (Kárpáti) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus redliana* Kárpáti, Hung. Acta Biol. 1: 118. 1949.

***Pyrus reducta* (Diels) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus reducta* Diels, Notes Roy. Bot. Gard. Edinburgh 5: 272. 1912.

***Pyrus reflexa* (Carr.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster reflexus* Carr., Rev. Hort. 342: 520. 1871.

***Pyrus reflexipetala* (Koehne) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus reflexipetala* Koehne, Mitt. Deutsch. Dendrol. Ges. 15: 58. 1906.

***Pyrus rehderi* (Pojark.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster rehderi* Pojark., Not. Syst. Inst. Bot. Acad. Sci. USSR 17: 184. 1955.

***Pyrus reticulata* (Rehder & E.H.Wilson) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster reticulatus* Rehder & E.H.Wilson, Pl. Wilson. (Sargent) 1: 160. 1912.

***Pyrus raphiolepis* M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Crataegus indica* L., Sp. Pl. 1: 477. 1753, not: *Pyrus indica* Colebr. Etymology: This species is named for the genus *Raphiolepis*, now included in *Pyrus*. Note: A new name is proposed here based on the Linnaean type. There are numerous alternative names, but it is currently uncertain to what extent they refer to this species, or to forms, varieties or cultivars of it. A thorough revision of the nomenclature and taxonomy of this species and its varieties, forms and hybrids is needed. (Figure 13B)

***Pyrus rhodantha* (Kovanda) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus rhodantha* Kovanda, Verh. Zool.-Bot. Ges. Österreich 133: 321. 1996.

***Pyrus rhombiformis* (C.Németh) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus rhombiformis* C.Németh, Stud. Bot. Hung. 47: 305. 2016.

***Pyrus rhytidophylla* (Rehder & E.H.Wilson) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster rhytidophyllus* Rehder & E.H.Wilson, Pl. Wilson. (Sargent) 1: 175. 1912.

***Pyrus richii* (L.Houston) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus richii* L.Houston, New J. Bot. 4: 5. 2014.

***Pyrus ×rikuchuensis* (Koidz.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus rikuchuensis* Makino, J. Jap. Bot. 6: 7. 1929. (note: *Pyrus commixta* × *Pyrus*

*nippensis*).

***Pyrus rinzenii* (Rushforth) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus rinzenii* Rushforth, Plantsman n.s. 13: 114. 1991.

***Pyrus ×robertsonii* (T.C.G.Rich) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus ×robertsonii* T.C.G.Rich, Watsonia 27: 370. 2009. (note: *Pyrus aria* × *Pyrus eminens*).

***Pyrus roborschanskii* (Pojark.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster roborschanskii* Pojark., Not. Syst. Inst. Bot. Acad. Sci. USSR 21: 190. 1961.

***Pyrus ×robusta* (Carrière) M.F.Fay & Christenh., comb. nov.** Basionym: *Malus microcarpa* [unranked] *robusta* Carrière, Étud. Gén. Pomm. Microcarp.: 76: 1883. (note: *Pyrus baccata* × *Pyrus prunifolia*).

***Pyrus rockii* (Rehder) M.F.Fay & Christenh., comb. nov.** Basionym: *Malus rockii* Rehder, J. Arnold Arbor. 14: 206. 1933.

***Pyrus rokujodaisanensis* (Hayata) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster rokujodaisanensis* Hayata, Icon. Pl. Formosa 5: 63. 1915.

***Pyrus roopiana* (Bordz.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus roopiana* Bordz., Izv. Kievsk. Bot. Sada 12–13: 131. 1931.

***Pyrus rosea* (Edgew.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster roseus* Edgew., Trans. Linn. Soc. London 20: 46. 1846.

***Pyrus rosiflora* (Kun C.Chang & F.Y.Lu) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster rosiflorus* Kun C.Chang & F.Y.Lu, Bot. Stud. (Taipei) 52: 214. 2011.

***Pyrus royleana* (Dippel) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster racemiflorus* (Desf.) Booth ex Bosse var. *royleanus* Dippel J.Fryer & B.Hylmö, Handb. Laubholzk. 3: 415. 1893.

***Pyrus rubens* (W.W.Sm.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster rubens* W.W.Sm., Not. Roy. Bot. Gard. Edinburgh 10: 24. 1917.

***Pyrus rubescens* (McAll.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus rubescens* McAll., Gen. Sorbus : 235. 2005.

***Pyrus rubra* M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Cotoneaster salwinensis* G.Klotz, Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe 21: 1003. 1972, not: *Pyrus salwinensis* (Hand.-Mazz) M.F.Fay & Christenh.. Etymology: This species has red flowers followed by orange-red fruit, hence the epithet rubra, meaning red.

***Pyrus rufopilosa* (C.K.Schneid.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus rufopilosa* C.K.Schneid., Bull. Herb. Boissier Ser. 2, 6: 317. 1906.

***Pyrus rugosa* (E.Pritz.) M.F.Fay & Christenh., comb.**



Figure 13: **Angiosperms (Eudicots).** A, *Pyrus pomum* M.F.Fay & Christenh.; B, *Pyrus raphaelis* M.F.Fay & Christenh.; C, *Pyrus sargentii* (Rehder) M.F.Fay & Christenh.; D, *Pyrus speciosa* (Sweet) M.F.Fay & Christenh.; E, *Pyrus umbellularia* M.F.Fay & Christenh.; and F, *Pyrus villosa* (Thunb.) M.F.Fay & Christenh.. All images © Maarten Christenhuzs.

- nov.** Basionym: *Cotoneaster rugosus* E.Pritzel ex Diels, *Bot. Jahrb. Syst.* 29: 385. 1900.
- Pyrus rupicoloides** (L.Houston & T.C.G.Rich) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus rupicoloides* L.Houston & T.C.G.Rich, *Watsonia* 27: 291. 2009.
- Pyrus rushforthii** (McAll.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus rushforthii* McAll., *Gen. Sorbus*: 232. 2005.
- Pyrus sinohimalaica** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Sorbus spongbergii* Rushforth, *Int. Dendrol. Soc. Year Book* 2009: 96. 2010, not: *Pyrus spongbergii* (J.Fryer & B.Hylmö) M.F.Fay & Christenh. Etymology: This species is found in the Chinese Himalayas, hence the name.
- Pyrus rutilans** (McAll.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus rutilans* McAll., *Gen. Sorbus*: 235. 2005.
- Pyrus sabrina** (Flinck & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster sabrina* Hadden ex Krüssm., *Laubgehölze*: 117. 1951, *pro hybr.* Synonym: *Cotoneaster splendens* Flinck & B.Hylmö, *Bot. Not. (Lund)* 117: 124. 1964, not: *Pyrus splendens* Poit. & Turpin
- Pyrus sachalinensis** (Juz.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Malus sachalinensis* Juz., *Fl. URSS* 9: 372. 1939.
- Pyrus salatinii** (Bernátová & Májovský) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus salatinii* Bernátová & Májovský, *Biologia (Bratislava)* 58: 790. 2003, as 'salatini'.
- Pyrus salwinensis** (Hand.-Mazz.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Eriobotrya salwinensis* Hand.-Mazz., *Symb. Sin. Pt. 7*: 475. 1933.
- Pyrus sandakphuensis** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster sandakphuensis* G.Klotz, *Bull. Bot. Surv. India* 5: 213. 1963.
- Pyrus sapientiae** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Malus montana* Uglitzk., *Trudov Sev.-Kavk. Inst. Spets. Tekhn. Kul'tur* 1(3): 18. 1932, not: *Pyrus montana* Poit. & Turpin. Etymology: Named for the 'apple of wisdom'.
- Pyrus sargentaster** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Cotoneaster salicifolius* Franch., *Nouv. Arch. Mus. Hist. Nat., sér. 2, 8*: 225. 1886, not: *Pyrus salicifolia* Pall. = *Cotoneaster sargentii* G.Klotz, not *Pyrus sargentii* (Rehder) M.F.Fay & Christenh. Etymology: Named for Charles Sprague Sargent and aster, a star.
- Pyrus sargentii** (Rehder) M.F.Fay & Christenh., *comb. nov.* Basionym: *Malus sargentii* Rehder, *Trees & Shrubs [Sargent]* 1: 71. 1903. Note: The name *Pyrus sargentii* hort. has been in use, but it was never formally published as far as we can trace. (Figure

13C)

- Pyrus saturnus** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Crataegus cuspidata* Spach, *Hist. Nat. Vég.* 2: 106. 1834, not: *Pyrus cuspidata* Bertol. Etymology: Named for the planet Saturn.
- Pyrus saxicola** (T.C.G.Rich) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus saxicola* T.C.G.Rich, *Watsonia* 27: 307. 2009.
- Pyrus scandinavica** (B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster scandinavicus* B.Hylmö, *Svensk Bot. Tidskr.* 87: 317. 1993, not: *Pyrus scandinavica* hort. ex Lavallée, *nom. inval.*, *nom. nud.*
- Pyrus scannelliana** (T.C.G.Rich) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus scannelliana* T.C.G.Rich, *Watsonia* 27: 213. 2009.
- Pyrus scepusiensis** (Kovanda) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus scepusiensis* Kovanda, *Willdenowia* 16: 119. 1986.
- Pyrus schantungensis** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster schantungensis* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 21: 1018. 1972.
- Pyrus schemachensis** (Zinserl.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus schemachensis* Zinserl., *Fl. URSS* 9: 392. 1939.
- Pyrus xschinzii** (Düll) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus xschinzii* Düll, *Ber. Bayer. Bot. Ges.* 34: 61. 1961.
- Pyrus schizomeles** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Cotoneaster latifolius* J.Fryer & B.Hylmö, *New Plantsman* 8: 228. 2001, not: *Pyrus ×latifolia* Lindl. ex Steud. Etymology: This species has pomes that split open when mature, hence the name.
- Pyrus schlechtendalii** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster schlechtendalii* G.Klotz, *Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Reihe* 12: 776. 1963.
- Pyrus schneideriana** (Rehder & E.H.Wilson) M.F.Fay & Christenh., *comb. nov.* Basionym: *Photinia schneideriana* Rehder & E.H.Wilson, *Pl. Wilson. (Sargent)* 1: 188. 1912.
- Pyrus schnizleiniana** (N.Mey.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus schnizleiniana* N.Mey., *Ber. Bayer. Bot. Ges. Sonderband*: 146. 2005.
- Pyrus schubertii** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster schubertii* G.Klotz, *Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Reihe* 12: 759. 1963.
- Pyrus schuwerkiorum** (N.Mey.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus schuwerkiorum* N.Mey., *Ber. Bayer. Bot. Ges. Sonderband* : 162.

2005.

**Pyrus schwarziana** (N.Mey.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus schwarziana* N.Mey., *Ber. Bayer. Bot. Ges. Sonderband* : 110. 2005.

**Pyrus schwerinii** (C.K.Schneid.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Micromeles schwerinii* C.K.Schneid., *Ill. Handb. Laubholzk.* 1: 702. 1906, as 'schwerini'.

**Pyrus scopulina** (Greene) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus scopulina* Greene, *Pittonia* 4: 130. 1900.

**Pyrus seguini** (H.Lév.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Symplocos seguini* H.Lév., *Repert. Spec. Nov. Regni Veg.* 10: 431. 1912.

**Pyrus sellii** (T.C.G.Rich) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus sellii* T.C.G.Rich, *New J. Bot.* 4: 7. 2014.

**Pyrus semiincisa** (Borbás) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus aria* L. f. *semiincisa* Borbás, *Term. Tud. Közl.* 11: 34. 1879.

**Pyrus sennikoviana** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Cotoneaster ambiguus* Rehder & E.H.Wilson, *Pl. Wilson. (Sargent)* 1: 159. 1912, not: *Pyrus xambigua* (Decne.) M.F.Fay & Christenh. Etymology: Named in honour of Alexander Sennikov, for his contributions to the taxonomy of Rosaceae in general and *Cotoneaster* in particular.

**Pyrus serpentinae** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Eriobotrya glabrescens* J.E.Vidal, *Adansonia* sér. 2, 5: 554. 1965, not: *Pyrus glabrescens* Cardot. Etymology: This species is named for the snake that presented the apple of paradise to Eve in the Book of Genesis.

**Pyrus serrata** (J.E.Vidal) M.F.Fay & Christenh., *comb. nov.* Basionym: *Eriobotrya serrata* J.E.Vidal, *Adansonia* sér. 2, 5: 558. 1965.

**Pyrus serratifolia** (Desf.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Crataegus serratifolia* Desf., *Tabl. École Bot. (ed. 3)*: 288. 1829.

**Pyrus seboldiana** (S.Hammel & Haynold) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus seboldiana* S.Hammel & Haynold, *Jahresh. Ges. Naturk. Württemberg* 171: 52. 2015.

**Pyrus shannanensis** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster shannanensis* J.Fryer & B.Hylmö, *New Plantsman* 8: 237. 2001.

**Pyrus sharmae** (M.F.Watson, V.Manandhar & Rushforth) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus sharmae* M.F.Watson, V.Manandhar & Rushforth, *Int. Dendrol. Soc. Year Book* 2009: 79. 2010.

**Pyrus sherriffii** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster sherriffii* G.Klotz, *Wiss.*

*Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Reihe* 12: 776. 1963.

**Pyrus shimiana** M.F.Fay & Christenh., *nom. nov.*

Replaced synonym: *Cotoneaster wattii* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 19: 342. 1970, not: *Pyrus wattii* (Koehne) Bennet. Etymology: Named for the Shimla Mountains in Himachal Pradesh, India, where this species occurs.

**Pyrus shirinensis** (E.Hadac & Chrtek) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus shirinensis* E.Hadac & Chrtek, *Candollea* 35: 325. 1980.

**Pyrus sichuanensis** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster sichuanensis* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 21: 1013. 1972.

**Pyrus sikangensis** (Flinck & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster sikangensis* Flinck & B.Hylmö, *Bot. Not. (Lund)* 115: 376. 1962.

**Pyrus silvestrii** (Pamp.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster silvestrii* Pamp., *Nuov. Giorn. Bot. Ital.* 17: 288. 1910.

**Pyrus simonkaiana** (Kárpáti) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus simonkaiana* Kárpáti, *Agrártdud. Egyet. Kert- Szőlögazdaságtud. Karának Évk.* 1: 38. 1950.

**Pyrus simonsii** (Baker) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster simonsii* Baker, *Saunders Ref. Bot.* 1: t. 55. 1869.

**Pyrus slovenica** (Kovanda) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus slovenica* Kovanda, *Acta Univ. Carol., Biol.* 1961: 73. 1961.

**Pyrus smithii** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster smithii* G.Klotz, *Mitt. Deutsch. Dendrol. Ges.* 82: 77. 1996.

**Pyrus soczaviana** (Pojark.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster soczavianus* Pojark., *Not. Syst. Inst. Bot. Acad. Sci. USSR* 17: 179. 1955.

**Pyrus sodomaea** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Rhaphiolepis ferruginea* F.P.Metcalf, *Lingnan Sci. J.* 18: 509. 1939, not: *Pyrus ferruginea* Hook.f. Etymology: Named for the mythological 'Apple of Sodom'.

**Pyrus sognensis** (Hedl. ex Sennikov, Hjertson & Salvesen) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus sognensis* Hedl. ex Sennikov, Hjertson & Salvesen, *Ann. Bot. Fenn.* 53: 7. 2016.

**Pyrus xsorbaronia** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Mespilus xsorbifolia* hort. ex Poir., *Encyc. [Lamarck] Suppl.* 4: 72. 1816. (note: *Pyrus americana* × *Pyrus melanocarpa*), not: *Pyrus sorbifolia* Bosc ex P.Watson. Etymology: This is a hybrid between a former *Sorbus* and a former

- Aronia species.
- Pyrus sordida (G.Klotz) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster sordidus* G.Klotz, Mitt. Deutsch. Dendrol. Ges. 82: 72. 1996.
- Pyrus soulieana (G.Klotz) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster soulieanus* G.Klotz, Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe 21: 1014. 1972.
- Pyrus speciosa (Sweet) M.F.Fay & Christenh., comb. nov.** Basionym: *Cydonia speciosa* Sweet, Hort. Suburb. Lond.: 113. 1818. (Figure 13D)
- Pyrus spectans (L.Houston) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus spectans* L.Houston, New J. Bot. 4: 2. 2014.
- Pyrus spiraеaster M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Cotoneaster racemiflorus* (Desf.) Nooth ex Bosse var. *microcarpus* Rehder & E.H.Wilson, Pl. Wilson. (Sargent) 1: 169. 1912, not: *Pyrus microcarpa* (Pursh) DC. Etymology: From Greek σπίραλα, spirits, and αστέρ, star.
- Pyrus ×splendida (Hedl.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus ×splendida* Hedl., Kongl. Svenska Vetensk.-Akad. Handl. 35: 43. 1901.
- Pyrus spongbergii (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster spongbergii* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 316. 2009.
- Pyrus staceana M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Cotoneaster melanocarpus* (Ledeb.) Lodd., G.Lodd. & W.Lodd. ex M.Roem. var. *commixtus* C.K.Schneid., Ill. Handb. Laubholzk. 1: 752. 1906, not: *Pyrus commixta* (Hedl.) Cardot. Etymology: Named for Clive Stace, for his contributions to Rosaceae taxonomy.
- Pyrus staintonii (G.Klotz) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster staintonii* G.Klotz, Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe 21: 971. 1972.
- Pyrus stankovii (Juz.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus stankovii* Juz., Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk SSSR 12: 7. 1950.
- Pyrus stenophylla (Hand.-Mazz.) M.F.Fay & Christenh., comb. nov.** Basionym: *Photinia stenophylla* Hand.-Mazz., Symb. Sin. Pt. 7: 480. 1933.
- Pyrus sterniana (Turrill) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster franchetii* Bois var. *sternianus* Turrill, Bot. Mag. 167: pl. 130. 1950, as 'sterniana'.
- Pyrus stipularis (Craib) M.F.Fay & Christenh., comb. nov.** Basionym: *Eriobotrya stipularis* Craib, Bull. Misc. Inform. Kew 1929: 109. 1929.
- Pyrus stirtoniana (T.G.C.Rich) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus stirtoniana* T.G.C.Rich,
- Watsonia* 27: 215. 2009.
- Pyrus suavis (Pojark.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster suavis* Pojark., Not. Syst. Inst. Bot. Acad. Sci. USSR 16: 118. 1954.
- Pyrus subacuta (Pojark.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster subacutus* Pojark., Not. Syst. Inst. Bot. Acad. Sci. USSR 21: 165. 1961.
- Pyrus subadpressa (T.T.Yu) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster subadpressus* T.T.Yu, Acta Phytotax. Sin. 8: 219. 1963.
- Pyrus subarranensis (Hyl. ex Sennikov, Hjertson & Salvesen) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus subarranensis* Hyl. ex Sennikov, Hjertson & Salvesen, Ann. Bot. Fenn. 53: 9. 2016.
- Pyrus subcuneata (Wilmott) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus subcuneata* Wilmott, Proc. Linn. Soc. Lond. 146: 76. 1934.
- Pyrus subdanubialis (Soó) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus aria* L. f. *subdanubialis* Soó, Tisia 2: 222. 1937.
- Pyrus submultiflora (Popov) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster submultiflorus* Popov, Bull. Soc. Imp. Naturalistes Moscou 44: 126. 1935.
- Pyrus subochracea (T.T.Yu & L.T.Lu) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus subochracea* T.T.Yu & L.T.Lu, Acta Phytotax. Sin. 18: 494. 1980.
- Pyrus subpinnata (Hedl.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus subpinnata* Hedl., Nyt Mag. Naturvidensk. 49: 198. 1911.
- Pyrus subrotunda (K.Koch) M.F.Fay & Christenh., comb. nov.** Basionym: *Osteomeles subrotunda* K.Koch, Ann. Mus. Bot. Lugduno-Batavi 1: 250. 1864.
- Pyrus subsimilis (Hedl.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus subsimilis* Hedl., Nyt Mag. Naturvidensk. 52: 257. 1914.
- Pyrus subuniflora (Kitam.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster racemiflorus* (Desf.) K.Koch var. *subuniflora* Kitam., Results Kyoto Univ. Sci. Exp. Karakoram & Hindukush, 1955: 173. 1960.
- Pyrus sujoyi (Ghora) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus sujoyi* Ghora, Bull. Bot. Surv. India 49: 199. 2007.
- Pyrus xsuperba (Frahm) M.F.Fay & Christenh., comb. nov.** Basionym: *Cydonia maulei* T.Moore var. *superba* Frahm, Gartenwelt 2: 214. 1898. (note: *Pyrus speciosa* × *Pyrus japonica*)
- Pyrus svenhedinii (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster svenhedinii* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 316. 2009.
- Pyrus xsverigensis M.F.Fay & Christenh., nom. nov.** Basionym: *Cotoneaster ×suecicus* G.Klotz, Beitr.

- Phytotax.* 10: 47. 1982. (note: *P. conspicua* × *P. dammeri*), not: *Pyrus suecica* Roehl. ex Steud.  
Etymology: Named for Sverige, the Swedish name for Sweden, where this hybrid was found.
- Pyrus symondsii* (Standish ex T.Moore) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster symondsii* Standish ex T.Moore, *Proc. Roy. Hort. Soc. London* 1: 298. 1861. Replaced synonym: *Cotoneaster marginatus* (Loudon) Schtbl., *Linnaea* 27: 541. 1856, as 'marginata', not: *Pyrus marginata* Kit.
- Pyrus takhtajanii* (Gabrieljan) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus takhtajanii* Gabrieljan, *Biol. Zhurn. Armenii* 22: 39. 1969.
- Pyrus talgarica* (M.Popov) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster talgaricus* M.Popov, *Bull. Soc. Imp. Naturalistes Moscou* 44: 126. 1935.
- Pyrus tanpaensis* (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster tanpaensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide*: 317. 2009.
- Pyrus taoensis* (G.Klotz) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster taoensis* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 21: 1010. 1972.
- Pyrus taofuensis* (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster taofuensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide*: 317. 2009.
- Pyrus tapashana* (C.K.Schneid.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus tapashana* C.K.Schneid., *Bull. Herb. Boissier Ser.* 2, 6: 313. 1906.
- Pyrus taurica* (Zinserl.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus taurica* Zinserl. in Komarov, *Fl. USSR* 9: 497. 1939.
- Pyrus tauricola* (Zaik. ex Sennikov) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus tauricola* Zaik. ex Sennikov, *Willdenowia* 43: 39. 2013.
- Pyrus taylorii* (T.T.Yu) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster taylorii* T.T.Yu, *Bull. Brit. Mus. (Nat. Hist.), Bot.* 1: 129. 1954.
- Pyrus teijiashanensis* (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster teijiashanensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide*: 317. 2009.
- Pyrus tengyuehensis* (W.W.Sm.) M.F.Fay & Christenh., comb. nov.** Basionym: *Eriobotrya tengyuehensis* W.W.Sm., *Notes Roy. Bot. Gard. Edinburgh* 10: 30. 1917.
- Pyrus tenuipes* (Rehder & E.H.Wilson) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster tenuipes* Rehder & E.H.Wilson, *Pl. Wilson. (Sargent)* 1: 171. 1912.
- Pyrus tenuis* (McAll.) M.F.Fay & Christenh., comb. nov.**

- Basionym: *Sorbus tenuis* McAll., *Gen. Sorbus*: 233. 2005.
- Pyrus teodori* (Liljef.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus teodori* Liljef., *Acta Horti Berg.* 16: 283. 1953.
- Pyrus tergestina* (H.Lindb.) M.F.Fay & Christenh., comb. nov.** Basionym: *Pyrus aria* (L.) Ehrh. subsp. *tergestina* H.Lindb., *Öfvers. Finska Vetensk.-Soc. Förh.* 48: 45. 1906.
- Pyrus thaiszii* (Soó) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus aria* (L.) Crantz *thaiszii* Soó, *Tisia* 2: 223. 1937.
- Pyrus thayensis* (M.Lepší & P.Lepší) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus thayensis* M.Lepší & P.Lepší, *Preslia* 87: 148. 2015.
- Pyrus thimphuensis* (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster thimphuensis* J.Fryer & B.Hylmö, *New Plantsman* 8: 237. 2001.
- Pyrus thunbergii* M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Crataegus glabra* Thunb., *Syst. Veg. (ed. 14.)*: 465. 1784, not: *Pyrus glabra* Boiss. Etymology: This species is named for Carl Peter Thunberg, who first described it.
- Pyrus thymifolia* (Baker) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster thymifolius* Baker, *Saunders Ref. Bot.* 1: 50. 1869.
- Pyrus tiantangensis* (X.M.Liu & C.L.Wang) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus tiantangensis* X.M.Liu & C.L.Wang, *Bull. Bot. Res., Harbin* 29: 131. 2009.
- Pyrus tibetica* (G.Klotz) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster tibeticus* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 17: 334. 1968, not: *Pyrus thibetica* Cardot
- Pyrus tiliifolia* (H.Zare, Amini & Assadi) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus tiliifolia* H.Zare, Amini & Assadi, *Iran. J. Bot.* 10: 148. 2004.
- Pyrus tjuliniae* (Pojark. ex Peshkova) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster tjuliniae* Pojark. ex Peshkova, *Novosti Sist. Vyssh. Rast.* 15: 232. 1979.
- Pyrus tobani* (C.Németh) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus tobani* C.Németh, *Fl. Pannonicica* 5: 177. 2007, as 'tobani'.
- Pyrus tomentella* (Pojark.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster tomentellus* Pojark., *Not. Syst. Inst. Bot. Acad. Sci. USSR* 21: 200. 1961.
- Pyrus transcaucasica* (Pojark.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster transcaucasicus* Pojark., *Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk S.S.R.* 21: 162. 1961.
- Pyrus transsens* (G.Klotz) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster transsens* G.Klotz, *Wiss.*

- Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe 17: 337. 1968.*
- Pyrus tripyrena (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster tripyrenus* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 317. 2009.
- Pyrus tristaniiarpa (Kurz) M.F.Fay & Christenh., comb. nov.** Basionym: *Dichotomanthes tristaniiarpa* Kurz, *J. Bot.* 11: 195. 1873, as '*tristaniaecarpa*'.
- Pyrus tsaii (Rehder) M.F.Fay & Christenh., comb. nov.** Basionym: *Photinia tsaii* Rehder, *J. Arnold Arbor.* 19: 274. 1938.
- Pyrus tsarongensis (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster tsarongensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 317. 2009.
- Pyrus tsinlingensis (C.L.Tang) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus tsinlingensis* C.L.Tang, *Fl. Tsinling.* 1: 608. 1974.
- Pyrus tumetica (Pojark.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster tumeticus* Pojark., *Not. Syst. Inst. Bot. Acad. Sci. USSR* 21: 204. 1961.
- Pyrus turbinata (Craib) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster turbinatus* Craib, *Curtis's Bot. Mag.* 140: t. 8546. 1914.
- Pyrus turcica (Zinserl.) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus turcica* Zinserl., *Fl. URSS* 9: 399. 1939.
- Pyrus turdus M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Cotoneaster mairei* H.Lév., *Bull. Geogr. Bot.* 25: 45. 1915, not: *Pyrus mairei* H.Lév. Etymology: Named for thrushes (genus *Turdus*), birds that are keen on its fruit in autumn.
- Pyrus turkmenorum (Juz. & Popov) M.F.Fay & Christenh., comb. nov.** Basionym: *Malus turkmenorum* Juz. & Popov, *Fl. URSS* 9: 364. 1939.
- Pyrus tushanensis (T.T.Yu) M.F.Fay & Christenh., comb. nov.** Basionym: *Photinia tushanensis* T.T.Yu, *Acta Phytotax. Sin.* 8: 229. 1963.
- Pyrus tytthocarpa (Pojark.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster tytthocarpus* Pojark., *Not. Syst. Inst. Bot. Acad. Sci. USSR* 21: 181. 1961.
- Pyrus udvardyana (Somlyay & Sennikov) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus udvardyana* Somlyay & Sennikov, *Phytotaxa* 164: 268. 2014.
- Pyrus ujhelyii (Somlyay & Sennikov) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus ujhelyii* Somlyay & Sennikov, *Ann. Bot. Fenn.* 53: 363. 2016.
- Pyrus ulleungensis (Chin S.Chang) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus ulleungensis* Chin S.Chang, *Harvard Pap. Bot.* 19: 252. 2014.
- Pyrus ulmifolia (Kárpáti ex Németh) M.F.Fay &**

- Christenh., comb. nov.** Basionym: *Sorbus ulmifolia* Kárpáti ex Németh, *Acta Bot. Hung.* 52: 394. 2010.
- Pyrus umbellifera M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Crataegus umbellata* Desf., *Cat. Pl. Hort. Reg. Paris.*: 408. 1829, not: *Pyrus umbellata* Dum.Cours. Etymology: This species has umbellate inflorescences.
- Pyrus umbellularia M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Laurus umbellata* Thunb., *Syst. Veg.* (ed. 14): 384. 1784, not: *Pyrus umbellata* Dum.Cours. Etymology: This species has umbellate inflorescences and like *Umbellularia* resembles a Lauraceae. (Figure 13E)
- Pyrus undulata (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster undulatus* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 317. 2009.
- Pyrus uniflora (Bunge) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster uniflorus* Bunge in Lebed., *Fl. Altaica* 2: 220. 1830.
- Pyrus uralensis (B.Hylmö & J.Fryer) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster uralensis* B.Hylmö & J.Fryer, *Acta Bot. Fennica* 162: 181. 1999.
- Pyrus uranusa M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Photinia serrulata* Lindl. var. *prunifolia* Hook. & Arn., *Bot. Beechey Voy.* 4: 185. 1833, not: *Pyrus prunifolia* Willd. Etymology: Named for the planet Uranus.
- Pyrus uva-ursi (Lindl.) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster microphyllus* Wall. ex Lindl. var. *uva-ursi* Lindl., *Edwards's Bot. Reg.* 14: t. 1187. 1828.
- Pyrus uzbezica (Grevtsova ex J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster uzbeicus* Grevtsova ex J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 78. 2009.
- Pyrus vaccinoides M.F.Fay & Christenh., nom. nov.** Replaced synonym: *Vaccinium corymbiferum* Miq., *Fl. Ned. Ind., Eerste Bijv.* 1: 588. 1861, not: *Pyrus corymbifera* Nakai. Etymology: This species somewhat resembles a *Vaccinium* (Ericaceae).
- Pyrus vajdae (Boros) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus vajdae* Boros, *Agrártud. Egyet. Kert-Szölögazdaság*tud. Karának Közlem.
- 13: 154. 1949.
- Pyrus vallerubusensis (C.Németh) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus vallerubusensis* C.Németh, *Kitaibelia* 14: 93. 2009.
- Pyrus vallusensis (C.Németh) M.F.Fay & Christenh., comb. nov.** Basionym: *Sorbus vallusensis* C.Németh, *Stud. Bot. Hung.* 47: 310. 2016.
- Pyrus vandelaarii (J.Fryer & B.Hylmö) M.F.Fay & Christenh., comb. nov.** Basionym: *Cotoneaster*

- vandelaarii* J.Fryer & B.Hylmö, *New Plantsman* 8: 238. 2001.
- Pyrus variabilis** M.F.Fay & Christenh., *nom. nov.*  
Replaced synonym: *Cotoneaster tengyuehensis* J.Fryer & B.Hylmö, *Watsonia* 21: 338. 1997, not: *Pyrus tengyuehensis* (W.W.Sm.) M.F.Fay & Christenh. Etymology: This species is variable, hence the name.
- Pyrus ×veitchii** (Trabut) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cydonia ×veitchii* Trab., *J. Heredity* 7: 416. 1916. (note: *Pyrus cydonia* × *Pyrus communis*)
- Pyrus velebilii** M.F.Fay & Christenh., *nom. nov.*  
Replaced synonym: *Sorbus omissa* Velebil, *Preslia* 84: 377. 2012, not: *Pyrus omissa* (J.Fryer & B.Hylmö) M.F.Fay & Christenh. Etymology: This species is named for Jiří Velebil, who first described this species.
- Pyrus velebitica** (Kárpáti) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus velebitica* Kárpáti in Németh, *Acta Bot. Hung.* 52: 395. 2010.
- Pyrus velutina** (Albov) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus aria* (L.) Crantz var. *velutina* Albov, *Prodr. Fl. Colchic.*: 71. 1895.
- Pyrus venus** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Micromeles khasiana* Decne., *Nouv. Arch. Mus. Hist. Nat.* 10: 169. 1874, not: *Pyrus khasiana* Hook.f. Etymology: Named for the planet Venus.
- Pyrus vermillionia** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Cotoneaster cinnabarinus* Juz., *Bot. Mater. Gerb. Bot. Inst. Komarova Akad. Nauk S.S.R.* 13: 32. 1950, not: *Pyrus cinnabrina* Poit. & Turpin. Etymology: Named for the vermillion coloured fruits; vermillion is a pigment originally made from cinnabar.
- Pyrus verna** (C.K.Schneid.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster verna* C.K.Schneid., *Bot. Gaz.* 64: 71. 1917.
- Pyrus vertesica** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Sorbus acutiserrata* C.Németh, *Kitaibelia* 14: 90. 2009, as 'acutiserratus', not: *Pyrus acutiserrata* Gladkova. Etymology: Named for the Vertes Mountains in Hungary where this species is found.
- Pyrus verokotschi** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster verokotschi* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 318. 2009.
- Pyrus verruculosa** (Diels) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster verruculosus* Diels, *Not. Bot. Gard. Edinburgh* 5: 272. 1912.
- Pyrus vertesensis** (Boros) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus vertesensis* Boros, *Mitt. Kgl. Ungar. Gartenb.-Lehranst.* 3: 52. 1937.
- Pyrus veszpremensis** (Barabits) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus veszpremensis*

- Barabits, *Tilia* 13: 17. 2007.
- Pyrus vexans** (E.F.Warb.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus vexans* E.F.Warb., *Watsonia* 4: 46. 1957.
- Pyrus viburnoides** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Cotoneaster glabratus* Rehder & E.H.Wilson, *Pl. Wilson (Sargent)* 1: 171. 1912, not: *Pyrus glabrata* (Rehder) L.H.Bailey. Etymology: named for the resemblance to *Viburnum* (Adoxaceae)
- Pyrus ×vilmoriniana** (C.Weber) M.F.Fay & Christenh., *comb. nov.* Basionym: *Chaenomeles ×vilmoriniana* C.Weber, *Arnoldia* 23: 64. 1963. (note: *Pyrus speciosa* × *Pyrus cathayensis*).
- Pyrus villosa** (Thunb.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Crataegus villosa* Thunb., *Crataegus villosa* Thunb., *Syst. Veg. (ed. 14)*: 465. 1784. (Figure 13F)
- Pyrus villosula** (Rehder & E.H.Wilson) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster acutifolius* Turcz. var. *villosulus* Rehder & E.H.Wilson, *Pl. Wilson. (Sargent)* 1: 158. 1912.
- Pyrus vilmorinii** (C.K.Schneid.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus vilmorinii* C.K.Schneid., *Bull. Herb. Boissier, sér. 2, 6:* 317. 1906.
- Pyrus vitis-idaea** M.F.Fay & Christenh., *nom. nov.* Basionym: *Cotoneaster browiczii* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide*: 308. 2009, not: *Pyrus browiczii* Mulk. Etymology: Named for the superficial similarity to lingon, *Vaccinium vitis-idaea* L. (Ericaceae).
- Pyrus vivax** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Cotoneaster cuspidatus* C.Marquand ex J.Fryer & B.Hylmö, *New Plantsman* 5: 138. 1998, not: *Pyrus cuspidata* Bertol. Etymology: From Latin, *vivacis*, alive.
- Pyrus wallichiana** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster wallichianus* G.Klotz, *Wiss. Z. Martin-Luther-Univ. Halle-Wittenberg, Math.-Naturwiss. Reihe* 15: 541. 1966.
- Pyrus wanbooyensis** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster wanbooyensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 318. 2009.
- Pyrus wardii** (W.W.Sm.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster wardii* W.W.Sm., *Not. Roy. Bot. Gard. Edinburgh* 10: 25. 1917.
- Pyrus washanensis** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster washanensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 318. 2009.
- Pyrus xwatereri** (Exell) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster xwatereri* Exell, *Gard.*

*Chron.* 3: 83. 1928.

**Pyrus weberbaueri** (C.K.Schneid.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Hesperomeles weberbaueri* C.K.Schneid., *Bot. Jahrb. Syst.* 42: 85. 1908.

**Pyrus whiteana** (T.C.G.Rich & L.Houston) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus whiteana* T.C.G.Rich & L.Houston, *Watsonia* 26: 2. 2006.

**Pyrus wilfordii** (Koehne) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus wilfordii* Koehne, *Repert. Spec. Nov. Regni Veg.* 10: 503. 1912.

**Pyrus williamtelliana** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Eriobotrya fragrans* Champ. ex Benth., *Hooker's J. Bot. Kew Gard. Misc.* 4: 80. 1852, not: *Pyrus fragrans* E.T.Geddes. Etymology: Named for William Tell, a folk hero of Switzerland, who shot an apple off the head of his son with a crossbow and saved both their lives.

**Pyrus wilmottiana** (E.F.Warb.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus wilmottiana* E.F. Warb., *Watsonia* 6: 296. 1967.

**Pyrus wilsonii** (Nakai) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster wilsonii* Nakai, *Bot. Mag. (Tokyo)* 32: 104. 1918.

**Pyrus woronowii** (Zinserl.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus woronowii* Zinserl., *Fl. URSS* 9: 395. 1939. Replaced synonym: *Sorbus caucasica* Zinserl., *Bot. Mater. Gerb. Glavn. Bot. Sada R.S.F.S.R.* 4: 142. 1923, not: *Pyrus caucasica* Fed.

**Pyrus wrightiana** (Maxim.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Photinia wrightiana* Maxim., *Bull. Acad. Imp. Sci. St-Pétersbourg* 32: 486. 1888.

**Pyrus wuzhishanensis** (W.B.Liao, R.H.Miao & Q.Fan) M.F.Fay & Christenh., *comb. nov.* Basionym: *Rhaphiolepis wuzhishanensis* W.B.Liao, R.H.Miao & Q.Fan, *Novon* 17: 429. 2007.

**Pyrus xizangensis** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Chaenomeles thibetica* T.T.Yu, *Acta Phytotax. Sin.* 8: 234. 1963, not: *Pyrus thibetica* Cardot. Etymology: Named for Xizang, an autonomous region in China known as Tibet.

**Pyrus yakutica** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster yakuticus* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 318. 2009.

**Pyrus yalungensis** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster yalungensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 318. 2009.

**Pyrus yinchangensis** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster yinchangensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 318. 2009.

**Pyrus yokouchii** (M.Mizush. ex T.Shimizu) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus yokouchii*

M.Mizush. ex T.Shimizu, *Fl. Nagano Pref.*: 1508. 1997. (note: *Pyrus sambucifolia* × *Pyrus matsumurana*).

**Pyrus yuana** (Spongberg) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus yuana* Spongberg, *J. Arnold Arbor.* 67: 257. 1986.

**Pyrus yui** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster yui* J.Fryer & B.Hylmö, *New Plantsman* 8: 237. 2001.

**Pyrus yulingkongensis** (J.Fryer & B.Hylmö) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster yulingkongensis* J.Fryer & B.Hylmö, *Cotoneasters Compreh. Guide* : 319. 2009.

**Pyrus zabelii** (C.K.Schneid.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster zabelii* C.K.Schneid., *Illustr. Handb. Laubholz.* 1: 749. 1906.

**Pyrus zayulensis** (G.Klotz) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster zayulensis* G.Klotz, *Wiss. Z. Friedrich-Schiller-Univ. Jena, Math.-Naturwiss. Reihe* 17: 334. 1968.

**Pyrus zayunesis** (T.T.Yu & L.T.Lu) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus zayunesis* T.T.Yu & L.T.Lu, *Acta Phytotax. Sin.* 18: 494. 1980.

**Pyrus zeravschanica** (Pojark.) M.F.Fay & Christenh., *comb. nov.* Basionym: *Cotoneaster zeravschanicus* Pojark., *Not. Syst. Inst. Bot. Acad. Sci. USSR* 17: 208. 1955.

**Pyrus zertovae** (Kárpáti) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus zertovae* Kárpáti, *Bot. Közlem.* 52: 137. 1966, as 'zertovae'.

**Pyrus zeto** M.F.Fay & Christenh., *nom. nov.* Replaced synonym: *Photinia microcarpa* Standl., *Publ. Carnegie Inst. Wash.* 461: 57. 1935, not: *Pyrus microcarpa* (Pursh) DC. Etymology: From Greek Ζήτω, meaning 'viva!', wishing a long life.

**Pyrus zhejiangensis** (P.L.Chiu) M.F.Fay & Christenh., *comb. nov.* Basionym: *Photinia zhejiangensis* P.L.Chiu, *Acta Phytotax. Sin.* 18: 97. 1980.

**Pyrus zhijiangensis** (T.C.Ku) M.F.Fay & Christenh., *comb. nov.* Basionym: *Photinia zhijiangensis* T.C.Ku, *Acta Phytotax. Sin.* 31: 192. 1993.

**Pyrus zolyomii** (Soó) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus aria* (L.) Crantz *zolyomii* Soó, *Tisia* 2: 220. 1937.

**Pyrus zuzanae** (Bernátová & Májovský) M.F.Fay & Christenh., *comb. nov.* Basionym: *Sorbus zuzanae* Bernátová & Májovský, *Biologia (Bratislava)* 58: 784. 2003.

**149. Cannabaceae.** Reference: Yang *et al.* (2013).

**Note:** *Trema* Lour. is paraphyletic with respect to *Parasponia* Miq., which is hereby transferred.

**Trema andersonii** (Planch.) Byng & Christenh., *comb. nov.* Basionym: *Parasponia andersonii* Planch. in

DC., *Prodr.* 17: 195. 1873.

**Trema aspera** (Blume) Byng & Christenh., *comb. nov.*  
Basionym: *Parasponia aspera* Blume, *Mus. Bot.* 2: 66. 1856.

**Trema eurhyncha** (Miq.) Byng & Christenh., *comb. nov.*  
Basionym: *Parasponia eurhyncha* Miq., *Fl. Ned. Ind., Erste Bijv.* 3: 411. 1861.

**Trema melastomatifolia** (J.J.Sm.) Byng & Christenh., *comb. nov.* Basionym: *Parasponia melastomatifolia* J.J.Sm., *Nova Guinea* 8: 891. 1912.

**Trema parviflora** (Miq.) Byng & Christenh., *comb. nov.*  
Basionym: *Parasponia parviflora* Miq., *Pl. Jungh.* 1: 69. 1851.

**Trema paucinervia** (Merr. & L.M.Perry) Byng & Christenh., *comb. nov.* Basionym: *Parasponia paucinervia* Merr. & L.M.Perry, *J. Arnold Arbor.* 20: 324. 1939.

**Trema rigida** (Merr. & L.M.Perry) Byng & Christenh., *comb. nov.* Basionym: *Parasponia rigida* Merr. & L.M.Perry, *J. Arnold Arbor.* 22: 254. 1941.

**Trema rugosa** (Blume) Byng & Christenh., *comb. nov.*  
Basionym: *Parasponia rugosa* Blume, *Mus. Bot.* 2: 66. 1856.

**Trema similis** (Blume) Byng & Christenh., *comb. nov.*  
Basionym: *Parasponia similis* Blume, *Mus. Bot.* 2: 66. 1856.

**Trema simulans** (Merr. & L.M.Perry) Byng & Christenh., *comb. nov.* Basionym: *Parasponia simulans* Merr. & L.M.Perry, *J. Arnold Arbor.* 22: 255. 1941.

## 154. Myricaceae

**Note:** *Myrica* L. is treated in the traditional, broad sense here, including *Morella* Lour.

**Myrica chevalieri** (Verd. & Polhill) Christenh. & Byng., *comb. nov.* Basionym: *Morella chevalieri* Parra-Os., *Brittonia* 52: 321. 2001.

**Myrica chimanimaniana** (Verd. & Polhill) Christenh. & Byng., *comb. nov.* Basionym: *Morella chimanimaniana* Verdc. & Polhill, *Fl. Zambes.* 9: 259. 2006.

**186. Hypericaceae.** References: Ruhfel *et al.* (2013), Sun *et al.* (2016).

**Note:** *Psorospermum* Spach is expanded to include all African and Malagasy species of *Vismieae* except *Vismia rubescens* Oliv. which is associated with *Harungana* Lam. and is sister to American *Vismia* Vand.

**Harungana rubescens** (Oliv.) Byng & Christenh., *comb. nov.* Basionym: *Vismia rubescens* Oliv., *Fl. Trop. Afr.* 1: 160. 1868.

**Psorospermum affine** (Oliv.) Byng & Christenh., *comb. nov.* Basionym: *Vismia affinis* Oliv., *Fl. Trop. Afr.* 1:

161. 1868.

**Psorospermum laurentii** (De Wild.) Byng & Christenh., *comb. nov.* Basionym: *Vismia laurentii* De Wild., *Ann. Mus. Congo Belge, Bot. sér.* 5, 2: 311. 1908.

**Psorospermum orientale** (Engl.) Byng & Christenh., *comb. nov.* Basionym: *Vismia orientalis* Engl., *Nat. Pflanzenfam.*, ed. 2. 21: 186. 1925.

**Psorospermum periclitatum** Byng & Christenh., *nom. nov.* Replaced synonym: *Vismia pauciflora* Milne-Redh., *Kew Bull.* 8: 437. 1953, not: *Psorospermum pauciflorum* Baker. Etymology: This species is listed as Endangered by IUCN due to habitat loss in its native Tanzania. The epithet is Latin, meaning endangered.

**Psorospermum torrei** (Mendes) Byng & Christenh., *comb. nov.* Basionym: *Vismia torrei* Mendes, *Bol. Soc. Brot. sér.* 2, 43: 335. 1969.

## 189. Putranjivaceae. Reference: Wurdack *et al.* (2004).

**Drypetes pleioneura** (Radcl.-Sm.) Christenh. & Byng., *comb. nov.* Basionym: *Sibangea pleioneura* Radcl.-Sm., *Kew Bull.* 32: 481. 1978.

## 200. Violaceae. Reference: Wahlert *et al.* (2014).

**Note:** Violaceae is a complicated family with several genera not monophyletic. Particularly problematic are *Hybanthus* Jacq. and *Rinorea* Aubl., that are widely polyphyletic. To solve at least some of the issues the genus *Corynostylis* Mart. is expanded to include *Agatea* A.Gray, *Hekkingia* H.E.Ballard & Munzinger is included in *Papayrola* Aubl. and *Leonia* Ruiz & Pav. is expanded to encompass the entire 'Clade 3' of Wahlert *et al.* (2014), including *Amphirrhox* Spreng., *Gloeospermum* Triana & Planch., *Mayanaea* Lundell, *Orthion* Standl. & Steyermark. and some species of *Hybanthus* and *Rinorea*. This does not solve all the issues, but is a step toward monophyletic genera in Violaceae.

**Corynostylis lecointei** (Munzinger) Byng & Christenh., *comb. nov.* Basionym: *Agatea lecointei* Munzinger, *Bot. J. Linn. Soc.* 137: 93. 2001.

**Corynostylis longipedicellata** (Baker f.) Byng & Christenh., *comb. nov.* Basionym: *Agation longipedicellatum* Baker f., *J. Linn. Soc., Bot.* 45: 270. 1921. (Figure 14A)

**Corynostylis macrobotrys** (K.Schum. & Lauterb.) Byng & Christenh., *comb. nov.* Basionym: *Agatea macrobotrys* K.Schum. & Lauterb., *Fl. Schutzgeb. Südsee*: 453. 1900.

**Corynostylis pancheri** (Brongn.) Byng & Christenh., *comb. nov.* Basionym: *Agation pancheri* Brongn., *Bull. Soc. Bot. France* 8: 80. 1861.

**Corynostylis rufotomentosa** (Baker f.) Byng & Christenh., *comb. nov.* Basionym: *Agation*

- rufotomentosum* Baker f., *J. Linn. Soc., Bot.* 45: 269. 1921.
- Corynostylis schlechteri* (Melch.) Byng & Christenh., comb. nov.** Basionym: *Agatea schlechteri* Melch. in Engl. & Prantl, *Nat. Pflanzenfam.*, ed. 2, 21: 361. 1925.
- Corynostylis veillonii* (Munzinger) Byng & Christenh., comb. nov.** Basionym: *Agatea veillonii* Munzinger, *Bot. J. Linn. Soc.* 137: 91. 2001.
- Corynostylis violaris* (A.Gray) Byng & Christenh., comb. nov.** Basionym: *Agatea violaris* A.Gray, *Proc. Amer. Acad. Arts & Sci.* 2: 324. 1852.
- Leonia andina* (Tul.) Byng & Christenh., comb. nov.** Basionym: *Alsodeia andina* Tul., *Ann. Sci. Nat., Bot. sér. 3*: 7: 366. 1847.
- Leonia blakeana* (Standl.) Byng & Christenh., comb. nov.** Basionym: *Rinorea blakeana* Standl., *Publ. Field Mus. Nat. Hist., Bot. Ser.* 22: 349. 1940.
- Leonia borealis* (C.V.Morton) Byng & Christenh., comb. nov.** Basionym: *Gloeospermum boreale* C.V.Morton, *Publ. Field Mus. Nat. Hist., Bot. Ser.* 9: 309. 1940.
- Leonia crassicarpa* (W.Palacios) Byng & Christenh., comb. nov.** Basionym: *Gloeospermum crassicarpum* W.Palacios, *Caldasia* 34: 77. 2012.
- Leonia caudata* (Lundell) Byng & Christenh., comb. nov.** Basionym: *Orthion caudatum* Lundell, *Wrightia* 4: 38. 1968.
- Leonia dichotoma* (Rusby) Byng & Christenh., comb. nov.** Basionym: *Rinorea dichotoma* Rusby, *Descr. S. Amer. Pl.*: 61. 1920.
- Leonia diversipetala* (L.O.Williams) Byng & Christenh., comb. nov.** Basionym: *Gloeospermum diversipetalum* L.O.Williams, *Ceiba* 4: 273. 1955.
- Leonia eneidensis* (Hekking) Byng & Christenh., comb. nov.** Basionym: *Gloeospermum eneidense* Hekking, *Phytologia* 43: 463. 1979.
- Leonia equatoriensis* (Hekking) Byng & Christenh., comb. nov.** Basionym: *Gloeospermum equatoriense* Hekking, *Phytologia* 43: 464. 1979.
- Leonia falcata* (Hekking) Byng & Christenh., comb. nov.** Basionym: *Gloeospermum falcatum* Hekking, *Phytologia* 43: 465. 1979.
- Leonia ferrugineosticta* (A.Robyns) Byng & Christenh., comb. nov.** Basionym: *Gloeospermum ferrugineostictum* A.Robyns, *Ann. Missouri Bot. Gard.* 53: 111. 1966.
- Leonia gossypium* (Tul.) Byng & Christenh., comb. nov.** Basionym: *Alsodeia gossypium* Tul., *Ann. Sci. Nat., Bot. sér. 3*, 7: 367. 1847.
- Leonia grandifolia* (Hekking) Byng & Christenh., comb. nov.** Basionym: *Gloeospermum grandifolium* Hekking, *Phytologia* 43: 461. 1979.
- Leonia longifolia* (Hekking) Byng & Christenh., comb. nov.** Basionym: *Gloeospermum longifolium* Hekking, *Phytologia* 43: 467. 1979.
- Leonia martii* (Eichler) Byng & Christenh., comb. nov.** Basionym: *Gloeospermum martii* Eichler, *Fl. Bras. (Martius)* 13: 389. 1871.
- Leonia pauciflora* (Hekking) Byng & Christenh., comb. nov.** Basionym: *Gloeospermum pauciflorum* Hekking, *Proc. Kon. Ned. Akad. Wetensch. C* 89: 399. 1986.
- Leonia pilosa* (Melch.) Byng & Christenh., comb. nov.** Basionym: *Gloeospermum pilosum* Melch., *Notizbl. Bot. Gart. Berlin-Dahlem* 8: 623. 1923.
- Leonia portobelensis* (A.Robyns) Byng & Christenh., comb. nov.** Basionym: *Gloeospermum portobelense* A.Robyns, *Ann. Missouri Bot. Gard.* 53: 111. 1966.
- Leonia sclerophylla* (Cuatrec.) Byng & Christenh., comb. nov.** Basionym: *Gloeospermum sclerophyllum* Cuatrec., *Fieldiana, Bot.* 27: 97. 1950.
- Leonia sphaerocarpa* (Triana & Planch.) Byng & Christenh., comb. nov.** Basionym: *Gloeospermum sphaerocarpum* Triana & Planch., *Ann. Sci. Nat., Bot. sér. 4*, 17: 129. 1862.
- Leonia sprucei* (Eichler) Byng & Christenh., comb. nov.** Basionym: *Gloeospermum sprucei* Eichler, *Fl. Bras. (Martius)* 13: 390. 1871.
- Leonia surinamensis* (Eichler) Byng & Christenh., comb. nov.** Basionym: *Amphirrhox surinamensis* Eichler, *Fl. Bras. (Martius)* 13: 377. 1871.
- Leonia ulei* (Melch.) Byng & Christenh., comb. nov.** Basionym: *Gloeospermum ulei* Melch., *Notizbl. Bot. Gart. Berlin-Dahlem* 9: 164. 1924.
- Paypayrola bordeneavei* (H.E.Ballard & Munzinger) Byng & Christenh., comb. nov.** Basionym: *Hekkingia bordeneavei* H.E.Ballard & Munzinger, *Syst. Bot.* 28: 345. 2003.
- 202. Passifloraceae.** References: Tokuoka (2012), Sun et al. (2016).
- Barteria laevigata* (Sol. ex R.Br.) Byng & Christenh., comb. nov.** Basionym: *Smeathmannia laevigata* Sol. ex R.Br., *Trans. Linn. Soc. London* 13: 221. 1821.
- Barteria pubescens* (Sol. ex R.Br.) Byng & Christenh., comb. nov.** Basionym: *Smeathmannia pubescens* Sol. ex R.Br., *Trans. Linn. Soc. London* 13: 221. 1821.
- 207. Euphorbiaceae.**
- Note:** The following variety is best elevated to species level.
- Euphorbia pubescenticocca* (Christenh.) Christenh., comb. & stat. nov.** Basionym: *Euphorbia hypericifolia* L. var. *pubescenticocca* Christenh., *Harvard Pap.*

Botany 7: 6. 2002.

**208. Linaceae.** Reference: McDill & Simpson (2011).

**Note:** *Hugonia* L. is not monophyletic and therefore species of *Durandeaa* Delarbre and *Roucheria* Planch. are hereby transferred.

***Hugonia angustifolia* (Stapf) Byng & Christenh., comb. nov.** Basionym: *Durandeaa angustifolia* Stapf, Bull. Misc. Inform. Kew 1908: 11. 1908.

***Hugonia viscosa* (Stapf) Byng & Christenh., comb. nov.** Basionym: *Durandeaa viscosa* Stapf, Hooker's Icon. Pl. 29: sub t. 2822. 1906.

***Hugonia griffithiana* (Planch.) Byng & Christenh., comb. nov.** Basionym: *Roucheria griffithiana* Planch., London J. Bot. 6: 143. 1847.

***Hugonia magnifolia* (Stapf) Byng & Christenh., comb. nov.** Basionym: *Durandeaa magnifolia* Stapf, Hooker's Icon. Pl. 29: t. 2822. 1906.

***Hugonia vietiensis* (Stapf) Byng & Christenh., comb. nov.** Basionym: *Durandeaa vietiensis* Stapf, Hooker's Icon. Pl. 29: sub t. 2822. 1906

**218. Myrtaceae.** References: Byng (2015), SYZWG (2016), Byng et al. (in prep.).

**Note:** Following extensive herbarium work, supplemented with molecular data, the following taxa need elevating to species rank to provide a more consistent classification.

***Eugenia drummondii* Byng & Christenh., nom. nov.** Replaced synonym: *Eugenia capensis* subsp. *gracilipes* F.White, Kirkia 10: 403. 1977, not: *Eugenia gracilipes* Kiaersk., nor: *Eugenia gracilipes* A.Gray. Etymology: Named in honour of Robert Baily Drummond who collected the type specimen and was a former Keeper of the Herbarium at the Royal Botanic Gardens, Kew.

***Eugenia verdcourtii* Byng, nom. nov.** Replaced synonym: *Eugenia capensis* subsp. *multiflora* Verdc., Kew Bull. 54: 43. 1999, not: *Eugenia multiflora* Lam. Etymology: Named for Bernard Verdcourt, an authority on East African plants. He first recognised and described this taxon.

***Syzygium afromontanum* (F.White) Byng, comb. & stat. nov.** Basionym: *Syzygium guineense* subsp. *afromontana* F.White, Forest Fl. N. Rhodes.: 455. 1962. (Figure 14B)

***Syzygium altecastaneum* (P.S.Ashton) Byng & Christenh., comb. & stat. nov.** Basionym: *Syzygium castaneum* subsp. *altecastaneum* P.S.Ashton, Kew Bull. 61: 116. 2006.

***Syzygium angustifolium* (M.R.Hend.) Byng & Christenh., comb. & stat. nov.** Basionym: *Eugenia kiahii* var. *angustifolium* M.R.Hend., Gard. Bull.

Singapore 12: 116. 1949, as '*angustifolia*'.

***Syzygium barotsense* (F.White) Byng & Christenh., comb. & stat. nov.** Basionym: *Syzygium guineense* subsp. *barotsense* F.White, Forest Fl. N. Rhodes.: 455. 1962.

***Syzygium bleeseri* (O.Schwarz) Byng & Christenh., comb. nov.** Basionym: *Eugenia bleeseri* O.Schwarz, Repert. Spec. Nov. Regni Veg. 24: 90. 1927.

***Syzygium cadetii* Byng & Christenh., nom. nov.** Replaced synonym: *Syzygium cymosum* var. *montanum* J.Guého & A.J.Scott, Kew Bull. 34: 490 (1980). Etymology: Named after Thérésian Cadet who collected the type specimen of this species. (Figures 14C–D)

***Syzygium corneri* Byng & Christenh., nom. nov.** Replaced synonym: *Syzygium ob lanceolatum* subsp. *kinabaluense* P.S.Ashton, Gard. Bull. Singapore 61: 12. 2009, not: *Syzygium kinabaluense* (Stapf) Merr. & L.M.Perry. Etymology: Named for Edred J.H. Corner, for his contributions to Malaysian botany.

***Syzygium fraserense* Byng & Christenh., nom. nov.** Replaced synonym: *Eugenia rugosa* var. *cordata* M.R.Hend., Gard. Bull. Singapore 12: 246. 1949, not: *Syzygium cordatum* Hochst. Etymology: The type of this species was collected at the mountain resort of Fraser's Hill in Pahang, an area with high biodiversity.

***Syzygium garcinifolioides* (M.R.Hend.) Byng & Christenh., comb. & stat. nov.** Basionym: *Eugenia burkilliana* var. *garcinifolioides* M.R.Hend., Gard. Bull. Singapore 12: 118. 1949.

***Syzygium gununganum* Byng & Christenh., nom. nov.** Replaced synonym: *Eugenia claviflora* var. *montana* M.R. Hend., Gard. Bull. Singapore 12: 260. 1949, not: *Syzygium montanum* Thwaites & Hook.f. Etymology: From Malay *gunung*, meaning mountain.

***Syzygium holttumii* (Ridl.) Byng & Christenh., comb. nov.** Basionym: *Eugenia holttumii* Ridl., J. Bot. 62: 296. 1924.

***Syzygium jugorum* (Craib) Byng & Christenh., comb. nov.** Basionym: *Eugenia jugorum* Craib, Bull. Misc. Inform. Kew 1930: 168. 1930.

***Syzygium littorosum* Byng, nom. nov.** Replaced synonym: *Syzygium guineense* var. *littorale* Keay, Kew Bull. 8: 289, 1953, not: *Syzygium littorale* (Blume) Amshoff. Etymology: From Latin *littus*, shore, meaning shore-loving. (Figures 14E–F)

***Syzygium niassense* Byng & J.E.Burrows sp. nov.** (Figure 15). This is a riverine species with terete branchlets, and leaf apices that are usually acute. The hypanthium is light green to magenta above, sepals are magenta and fruits are oblong. It is similar to *Syzygium guineense* (Willd.) DC. but differs in its longer petioles and oblong fruit that are white initially but turn pale pink when mature. Tree to 18 m; bark smooth, pale grey to whitish mottled;



**Figure 14: Angiosperms (Eudicots).** A, *Corynostylis longipedicellata* (Baker f.) Byng & Christenh.; B, *Syzygium afromontanum* (F.White) Byng; C-D, habit and flowers of *Syzygium cadetii* Byng & Christenh.; E-F, *Syzygium littorosum* Byng; and G, *Syzygium pratense* Byng. Images A, © Maarten Christenhusz; B-G, © James Byng.



Figure 15: **Angiosperms (Eudicots).** *Syzygium niassense* Byng & J.E.Burrows sp. nov. A, habit; B, buttressed stem; C-D, inflorescences; E, white fruit; and F, maturing pale pink fruit. All images © John Burrows.

branchlets terete, greyish brown, peeling. Leaves drying dark green to dark olive green above, lighter below; coriaceous, 7.0–13.0 × 2.5–5.0 cm, elliptic, lanceolate-elliptic or oblong-elliptic, base cuneate, apex acute to acuminate, margin slightly revolute; 10–18 secondary vein pairs, these are 5–7 mm apart, prominent on both sides, tertiary veins many, prominent; inner intramarginal vein ca. 1 mm from the leaf margin, outer intramarginal obscure, < 0.3 mm from the leaf margin; petioles 10–17 mm long. Inflorescences terminal, up to 7.5 cm long, axes terete, flowers up to 30, in clusters of 3; bracts and bracteoles deltoid, ca. 0.75 mm long, caducous. Flower buds ca. 6 × 3 mm; pseudostalks ca. 2 mm long; hypanthium 4.0–6.0 × 5.0–5.5 mm, pyriform, light green below to pinkish at the top; sepals 0.5–1.0 × 2.0–3.0 mm, round, magenta; petals ca. 3–4 × 3–4 mm, orbicular, creamy white, calyprate; stamens 5–7 mm long, white; anthers ca. 0.5 mm; styles 6–7 mm long. Fruits oblong, 2.0–2.5 × ca. 1.5 cm, white at first, ripening to pale pink. **Type:** MOZAMBIQUE, Sofala, Cheringoma Plateau, ca. 40 km from the Dondo-Inhaminga road on the Chinizua road, next to the crossing over the Chinizua River, 93 m, fl., 8 October 2007, J.E. Burrows & S.M. Burrows 10156 (holotype BNRH). **Distribution:** Known only from Mozambique, but likely to occur in southern Tanzania. **Ecology:** Riverbanks, riverine, coastal and miombo woodlands; 30–404 m elevations. **Etymology:** Named after the Niassa Game Reserve where it occurs. **Additional specimens examined:** MOZAMBIQUE. Cabo Delgado, Pemba to Mahate (Quissanga), sterile, 9 October 2005, J.E. Burrows & S.M. Burrows 9159 (BNRH); ca. 10 km south of Palma on road to Mocimboa de Praia, fl., 2 December 2008, J.E. Burrows & S.M. Burrows 10923 (BNRH); Rio Mute, ca. 10 km S of Palma on road to Mocimboa da Praia, fr., 21 March 2009, J.E. Burrows & S.M. Burrows 10923 (BNRH); Nangade district, Camp of Hunters Mozambique concession, on banks of Rovuma River, sterile, 8 September 2009, J.E. Burrows & S.M. Burrows 10923 (BNRH). Niassa, base of track up Serra Mecula from west side, Niassa Game Reserve, fr., 16 March 2009, J.E. Burrows & S.M. Burrows 11220 (BNRH). Zambezia, between Caia and Nicudala, sterile, 2 October 2005, J.E. Burrows & S.M. Burrows 9088 (BNRH).

**Syzygium parnelli** Byng & Christenh., nom. nov. Replaced synonym: *Syzygium boisianum* subsp. *longifolium* Chantar. & J.Parn., Kew Bull. 48: 593. 1993, not: *Syzygium longifolium* (Brongn. & Gris) J.W.Dawson. Etymology: Named after John Parnell who studied this genus in Thailand and Indochina, and who first recognised this as a new taxon.

**Syzygium patentinervium** (P.S.Ashton) Byng & Christenh., comb. & stat. nov. Basionym: *Syzygium garciniifolium* var. *patentinervium* P.S.Ashton, Kew

Bull. 61: 123. 2006.

**Syzygium paucinervium** (Chantar. & J.Parn.) Byng & Christenh., comb. & stat. nov. Basionym: *Syzygium hemsleyanum* subsp. *paucinervium* Chantar. & J.Parn., Kew Bull. 48: 599. 1993.

**Syzygium phaeophyllum** (Merr. & L.M.Perry) Byng & Christenh., comb. & stat. nov. Basionym: *Syzygium leucoxylon* var. *phaeophyllum* Merr. & L.M.Perry, Mem. Amer. Acad. Arts, n.s., 18: 194. 1939.

**Syzygium pratense** Byng, nom. nov. Replaced synonym: *Syzygium guineense* var. *macrocarpum* Engl. in H.G.A.Engler & C.G.O.Drude, Veg. Erde 3(2): 738. 1921, not: *Syzygium macrocarpum* Bahadur & R.C.Gaur. Etymology: Refers to the grasslands where this species often occurs. (Figure 14G)

**Syzygium quadrisepalum** (P.S.Ashton) Byng & Christenh., comb. & stat. nov. Basionym: *Syzygium barringtonioides* var. *quadrisepalum* P.S.Ashton, Kew Bull. 61: 113. 2006.

**Syzygium shimbaense** (Verdc.) Byng & Christenh., comb. & stat. nov. Basionym: *Syzygium cordatum* subsp. *shimbaense* Verdc., Fl. Trop. E. Afr., Myrtac. : 74. 2001.

**Syzygium smetsianum** Byng & Christenh., nom. nov. Replaced synonym: *Eugenia claviflora* var. *riparia* M.R.Hend., Gard. Bull. Singapore 12: 257. 1949, not: *Syzygium riparium* (Diels) Merr. & L.M.Perry. Etymology: Named in honour of Erik Smets, Director of Naturalis Biodiversity Center, for his contributions to botany.

**Syzygium sublaetum** (Craib) Byng & Christenh., comb. nov. Basionym: *Eugenia sublaeta* Craib, Bull. Misc. Inform. Kew 1930: 169. 1930.

**Syzygium tavaicense** (P.S.Ashton) Byng & Christenh., comb. & stat. nov. Basionym: *Syzygium claviflorum* subsp. *tavaicense* P.S.Ashton, Gard. Bull. Singapore 61: 8. 2009.

**Syzygium urophyllum** (Welw. ex Hiern) Byng & Christenh., comb. nov. Basionym: *Eugenia urophylla* Welw. ex Hiern, Cat. Afr. Pl. 1: 360. 1898.

**222. Penaeaceae.** Reference: Schönenberger & Conti (2003).

**Note:** Morphologically the genera of subfamily Penaeoideae are similar but have nevertheless been divided into seven genera based on trivial characters. Molecular data did not support these genera. We thus expand the circumscription of *Penaea* L. to all members of Penaeoideae and elevate subspecies of *Penaea creorum* Meisn. to species level.

**Penaea geneiophora** Byng & Christenh., nom. nov. Replaced synonym: *Stylapterus barbatus* A.Juss., Ann. Sci. Nat., Bot. sér. 3, 6: 23, t. 1. 1846, not: *Penaea barbata* Endl. Etymology: From Greek γενειοφόρος,

meaning bearded.

***Penaea gigantea* (R.Dahlgren) Byng & Christenh., comb. & stat. nov.** Basionym: *Penaea cneorum* subsp. *gigantea* R.Dahlgren, *Opera Bot.* 29: 40. 1971.

***Penaea lanceolata* (R.Dahlgren) Byng & Christenh., comb. & stat. nov.** Basionym: *Penaea cneorum* subsp. *lanceolata* R.Dahlgren, *Opera Bot.* 29: 50. 1971.

***Penaea micrantha* (R.Dahlgren) Byng & Christenh., comb. nov.** Basionym: *Stylapterus micranthus* R.Dahlgren, *Opera Bot.* 15: 18. 1967.

***Penaea microphylla* (Rourke) Byng & Christenh., comb. nov.** Basionym: *Brachysiphon microphyllus* Rourke, *Nordic J. Bot.* 15: 63. 1995.

***Penaea mundii* (Sond.) Byng & Christenh., comb. nov.** Basionym: *Brachysiphon mundii* Sond., *Linnaea* 23: 102. 1850.

***Penaea petraea* (W.F.Barker) Byng & Christenh., comb. nov.** Basionym: *Brachysiphon petraeus* W.F.Barker, *J. S. African Bot.* 29: 167. 1963.

***Penaea retzioides* (Sond.) Byng & Christenh., comb. nov.** Basionym: *Endonema retzioides* Sond., *Linnaea* 23: 103. 1850.

***Penaea roxburghii* Byng & Christenh., nom. nov.** Replaced synonym: *Brachysiphon ericifolius* A.Juss., *Ann. Sci. Nat., Bot. sér. 3, 6:* 24. 1846, not: *Penaea ericifolia* Gilg. Etymology: Named for J. Roxburgh, collector of the type specimen.

***Penaea rupestris* (Sond.) Byng & Christenh., comb. nov.** Basionym: *Brachysiphon rupestris* Sond., *Linnaea* 23: 101. 1850.

***Penaea ruscifolia* (R.Dahlgren) Byng & Christenh., comb. & stat. nov.** Basionym: *Penaea cneorum* subsp. *ruscifolia* R.Dahlgren, *Opera Bot.* 29: 48. 1971.

***Penaea speciosa* (W.F.Barker) Byng & Christenh., comb. nov.** Basionym: *Brachysiphon speciosus* Sond., *Linnaea* 23: 103. 1850.

***Penaea sulcata* (R.Dahlgren) Byng & Christenh., comb. nov.** Basionym: *Stylapterus sulcatus* R.Dahlgren, *Opera Bot.* 15: 26. 1967.

## 226. Staphyleaceae. Reference: Harris et al. (2017).

**Note:** *Euscaphis* Siebold & Zucc. and *Turpinia* Vent. are embedded in *Staphylea* L. and the species are hereby transferred.

***Staphylea affinis* (Merr. & L.M.Perry) Byng & Christenh., comb. nov.** Basionym: *Turpinia affinis* Merr. & L.M.Perry, *J. Arnold Arbor.* 22: 550. 1941.

***Staphylea arguta* (Seem.) Byng & Christenh., comb. nov.** Basionym: *Turpinia arguta* Seem., *Bot. Voy. Herald* 10: 371. 1857.

***Staphylea cochinchinensis* (Lour.) Byng & Christenh.,**

**comb. nov.** Basionym: *Triceros cochinchinensis* Lour., *Fl. Cochinch.* 1: 184. 1790

***Staphylea formosana* (Nakai) Byng & Christenh., comb. nov.** Basionym: *Turpinia formosana* Nakai, *J. Arnold Arbor.* 5: 80. 1924.

***Staphylea indochinensis* (Merr.) Byng & Christenh., comb. nov.** Basionym: *Turpinia indochinensis* Merr., *J. Arnold Arbor.* 19: 43. 1938.

***Staphylea insignis* (Tul.) Byng & Christenh., comb. nov.** Basionym: *Turpinia insignis* Tul., *Ann. Sci. Nat., Bot. sér. 3, 7:* 296. 1847.

***Staphylea macrosperma* (C.C.Huang) Byng & Christenh., comb. nov.** Basionym: *Turpinia macrosperma* C.C.Huang, *Fl. Yunnan.* 2: 358. 1979.

***Staphylea megaphylla* (Tul.) Byng & Christenh., comb. nov.** Basionym: *Turpinia megaphylla* Tul., *Ann. Sci. Nat., Bot. sér. 3, 6:* 361. 1846.

***Staphylea ovalifolia* (Elmer) Byng & Christenh., comb. nov.** Basionym: *Turpinia ovalifolia* Elmer, *Leafl. Philipp. Bot.* 2: 490. 1908.

***Staphylea pomifera* (Roxb.) Byng & Christenh., comb. nov.** Basionym: *Dalrympelea pomifera* Roxb., *Pl. Coromandel* 3: 76. 1819.

***Staphylea robusta* (Craib) Byng & Christenh., comb. nov.** Basionym: *Turpinia robusta* Craib, *Bull. Misc. Inform. Kew* 1926: 361. 1926.

***Staphylea simplicifolia* (Merr.) Byng & Christenh., comb. nov.** Basionym: *Turpinia simplicifolia* Merr., *Philipp. J. Sci.* 27: 34. 1925.

***Staphylea subsessilifolia* (C.Y.Wu) Byng & Christenh., comb. nov.** Basionym: *Turpinia subsessilifolia* C.Y.Wu, *Fl. Yunnan.* 2: 355. 1979, *nom. inval.* = *Turpinia subsessilifolia* C.Y.Wu, *Cat. Type Sp. Herb. China*: 625. 1994.

***Staphylea ternata* (Nakai) Byng & Christenh., comb. nov.** Basionym: *Turpinia ternata* Nakai, *J. Arnold Arbor.* 5: 78. 1924.

***Staphylea tricornuta* (Lundell) Byng & Christenh., comb. nov.** Basionym: *Turpinia tricornuta* Lundell, *Bull. Torrey Bot. Club* 66: 598. 1939.

***Staphylea zanthoxyloides* Byng & Christenh., nom. nov.** Replaced synonym: *Zanthoxylum montanum* Blume, not: *Staphylea montana* Roxb. ex Wight & Arn., *Bijdr. Fl. Ned. Ind.* 5: 248. 1825. Etymology: This species superficially resembles a *Zanthoxylum* (Rutaceae), hence the chosen name.

## 238. Burseraceae. References: Weeks et al. (2014), Muellner-Riehl et al. (2016).

**Note:** *Crepidospermum* Hook.f. and *Tetragastris* Gaertn. are embedded in *Protium* and any new combinations required are made here. African *Dacryodes* Vahl do not form a clade with typical species from the Americas. *Santiria* Blume is also split with the sole

African species sister to African *Dacryodes*. No type species was designated for *Santiria*, but Blume described it from Asia only and hence the genus should pertain to an Asian concept. We reinstate *Pachylobus* G.Don for the African *Dacryodes* clade and transfer the African *Santiria* species (for which combinations in *Pachylobus* already exist) into it.

***Pachylobus bampsiana* (Pierlot) Byng & Christenh., comb. nov.** Basionym: *Dacryodes bampsiana* Pierlot, Bull. Jard. Bot. Natl. Belg. 65: 366. 1996.

***Pachylobus camerunensis* (Onana) Byng & Christenh., comb. nov.** Basionym: *Dacryodes camerunensis* Onana, Kew Bull. 61: 579. 2007.

***Pachylobus ebatom* (Aubrév. & Pellegr.) Byng & Christenh., comb. nov.** Basionym: *Dacryodes ebatom* Aubrév. & Pellegr., Fl. Gabon 3: 89. 1962.

***Pachylobus igaganga* (Aubrév. & Pellegr.) Byng & Christenh., comb. nov.** Basionym: *Dacryodes igaganga* Aubrév. & Pellegr., Fl. Gabon 3: 86. 1962.

***Pachylobus normandii* (Aubrév. & Pellegr.) Byng & Christenh., comb. nov.** Basionym: *Dacryodes normandii* Aubrév. & Pellegr. Fl. Gabon 3: 72. 1962.

***Pachylobus trapnellii* (Onana) Byng & Christenh., comb. nov.** Basionym: *Dacryodes trapnellii* Onana, Kew Bull. 58: 219. 2003.

***Pachylobus villiersiana* (Onana) Byng & Christenh., comb. nov.** Basionym: *Dacryodes villiersiana* Onana, Kew Bull. 63: 395. 2008.

***Protium atlanticum* (Daly) Byng & Christenh., comb. nov.** Basionym: *Crepidospermum atlanticum* Daly, Kew Bull. 57: 471. 2002.

***Protium breviacuminatum* (Swart) Byng & Christenh., comb. nov.** Basionym: *Tetragastris breviacuminata* Swart, Recueil Trav. Bot. Néerl. 39: 206. 1942.

***Protium cuneifolium* (Cuatrec.) Byng & Christenh., comb. nov.** Basionym: *Hemicrepidiospermum cuneifolium* Cuatrec., Webbia 12: 417. 1957.

***Protium excelsior* Byng & Christenh., nom. nov.** Replaced synonym: *Icica altissima* Aubl., Hist. Pl. Guiane 1: 342. 1775, not: *Protium altissimum* Marchand. Etymology: As this is a tall species, it 'reaches to the heavens', hence 'excelsior'.

***Protium goudotianum* (Tul.) Byng & Christenh., comb. nov.** Basionym: *Icica goudotiana* Tul., Ann. Sci. Nat., Bot. sér. 3, 6: 372. 1846.

***Protium multijugum* (Swart) Byng & Christenh., comb. nov.** Basionym: *Crepidospermum multijugum* Swart, Recueil Trav. Bot. Néerl. 39: 205. 1942.

***Protium osseum* (Gaertn.) Byng & Christenh., comb. nov.** Basionym: *Tetragastris ossea* Gaertn., Fruct. Sem. Pl. 2: 130. 1791.

***Protium picramnioides* Byng & Christenh., nom. nov.** Replaced synonym: *Hedwigia panamensis* Engl., Bot. Jahrb. Syst. 1: 42. 1880, not: *Protium panamense*

(Rose) I.M.Johnst. Etymology: This species resembles a species of *Picramnia* (Picramniaceae).

***Protium prancei* (Daly.) Byng & Christenh., comb. nov.** Basionym: *Crepidospermum prancei* Daly, Brittonia 39: 56. 1987.

***Protium rhoifolium* (Benth.) Byng & Christenh., comb. nov.** Basionym: *Hedwigia rhoifolia* Benth., Hooker's J. Bot. Kew Gard. Misc. 4: 17. 1852.

***Protium surinamense* Byng & Christenh., nom. nov.** Replaced synonym: *Hedwigia hostmannii* Engl. in A.DC. & C.DC., Monogr. Phan. 4: 97. 1883, not: *Protium hostmannii* Engl. Etymology: This species is only known from Suriname.

***Protium varians* (Little) Byng & Christenh., comb. nov.** Basionym: *Tetragastris varians* Little, J. Wash. Acad. Sci. 38: 96. 6. 1948.

## 244. Cytinaceae

**Note:** We do not think the parasitic species found in Colombia in 2012 morphologically differs enough from the Central American *Bdallophytum* Eichler to warrant generic status. The genus *Sanguisuga* Fern.Alonso & H.Cuadros, in which it was placed, is therefore transferred.

***Bdallophytum caesareum* (Fern.Alonso & H.Cuadros) Byng & Christenh., comb. nov.** Basionym: *Sanguisuga caesarea* Fern.Alonso & H.Cuadros, Caldasia 34: 293. 2012.

## 247. Malvaceae. Reference: Whitlock & Hale (2011).

**Note:** *Ayenia* L. is embedded in *Byttneria* Loefl. and the two genera are here merged with the small sister genus *Rayleya* Cristóbal. *Ayenia* has nomenclatural priority.

***Ayenia abutiloides* (A.St.-Hil.) Christenh. & Byng, comb. nov.** Basionym: *Byttneria abutiloides* A.St.-Hil. & Naudin, Ann. Sci. Nat., Bot. sér. 2, 18: 31. 1842.

***Ayenia aculeata* (Jacq.) Christenh. & Byng, comb. nov.** Basionym: *Chaetaea aculeata* Jacq., Enum. Syst. Pl.: 17. 1760.

***Ayenia affinis* (Pohl) Christenh. & Byng, comb. nov.** Basionym: *Byttneria affinis* Pohl, Pl. Bras. Icon. Descr. 2: 73. 1830.

***Ayenia ambongensis* (Arènes) Christenh. & Byng, comb. nov.** Basionym: *Byttneria ambongensis* Arènes, Mém. Inst. Sci. Madagascar, Sér. B, Biol. Vég. 7: 95. 1956.

***Ayenia ancistrodonta* (Mildbr.) Christenh. & Byng, comb. nov.** Basionym: *Byttneria ancistrodonta* Mildbr, Notizbl. Bot. Gart. Berlin-Dahlem 11: 142. 1931.

***Ayenia andamanensis* (Kurz) Christenh. & Byng, comb. nov.** Basionym: *Byttneria andamanensis* Kurz, J.

- Asiat. Soc. Bengal, Pt. 2, Nat. Hist.* 40: 47. 1871.
- Ayenia aristeguietae** (Cristóbal) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria aristeguietae* Cristóbal, *Bonplandia (Corrientes)* 4: 93. 1976.
- Ayenia aspera** (Colebr. ex Roxb.) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria aspera* Colebr. ex Roxb., *Fl. Ind., ed. Carey & Wall.* 2: 383. 1824.
- Ayenia asplundii** (Cristóbal) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria asplundii* Cristóbal, *Bonplandia (Corrientes)* 4: 114. 1976.
- Ayenia asterotricha** (Mildbr.) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria asterotricha* Mildbr., *Notizbl. Bot. Gart. Berlin-Dahlem* 11: 143. 1931.
- Ayenia arenesis** Christenh. & Byng, *nom. nov.* Replaced synonym: *Byttneria hirta* Arènes, *Mém. Inst. Sci. Madagascar, Sér. B, Biol. Vég.* 7: 103. 1956, not: *Ayenia hirta* A.St.Hil. & Naudin. Etymology: Named for Jean Arènes, who first described this species.
- Ayenia atrata** (Bullock) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria atrata* Bullock, *Bull. Misc. Inform. Kew* 1936: 1. 1936.
- Ayenia attenuatifolia** (Cristóbal) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria attenuatifolia* Cristóbal, *Bonplandia (Corrientes)* 4: 389. 1976.
- Ayenia aurantiaca** (Mildbr.) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria aurantiaca* Mildbr., *Notizbl. Bot. Gart. Berlin-Dahlem* 11: 141. 1931.
- Ayenia australis** (A.St.-Hil.) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria australis* A.St.-Hil., *Fl. Bras. Merid. (quarto ed.)* 1: 145. 1825.
- Ayenia bahiensis** (Cristóbal) Christenh. & Byng, *comb. nov.* Basionym: *Rayleya bahiensis* Cristóbal, *Bonplandia (Corrientes)* 5: 45. 1981.
- Ayenia baronii** (Arènes) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria baronii* Arènes, *Mém. Inst. Sci. Madagascar, Sér. B, Biol. Vég.* 7: 86. 1956.
- Ayenia benensis** (Britton) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria benensis* Britton, *Bull. Torrey Bot. Club* 16: 155. 1889.
- Ayenia bernieri** (Hochr.) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria bernieri* Hochr., *Annuaire Conserv. Jard. Bot. Genève* 11 & 12: 4. 1907.
- Ayenia besalampensis** (Arènes) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria besalampensis* Arènes, *Mém. Inst. Sci. Madagascar, Sér. B, Biol. Vég.* 7: 100. 1956
- Ayenia beyrichiana** (K.Schum.) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria beyrichiana* K.Schum., *Fl. Bras. (Martius)* 12: 96. 1886.
- Ayenia biloba** (Baill.) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria biloba* Baill., *Adansonia* 10: 178. 1872.
- Ayenia byttnerioides** Christenh. & Byng, *nom. nov.* Replaced synonym: *Byttneria cordifolia* Sagot, *Ann. Sci. Nat., Bot. sér. 6, 11:* 155. 1881, not: *Ayenia cordifolia* Sessé ex DC. Etymology: Named for the genus *Byttneria*, now a synonym of *Ayenia*.
- Ayenia caripensis** (Cristóbal) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria caripensis* Cristóbal, *Bonplandia (Corrientes)* 6: 125. 1989.
- Ayenia catalpifolia** (Jacq.) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria catalpifolia* Jacq., *Pl. Rar. Hort. Schoenbr.* 1: 21. 1797.
- Ayenia celtoides** (A.St.-Hil.) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria celtoides* A.St.-Hil., *Fl. Bras. Merid. (quarto ed.)* 1: 41. 1825.
- Ayenia cordata** (Lam.) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria cordata* Lam., *Encycl.* 1(2): 523. 1785.
- Ayenia coriacea** (Britton) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria coriacea* Britton, *Bull. Torrey Bot. Club* 16: 156. 1889.
- Ayenia corylifolia** (Humb. & Bonpl. ex Roem. & Schult.) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria corylifolia* Humb. & Bonpl. ex Roem. & Schult., *Syst. Veg.*, ed. 15 bis 5: 470. 1819.
- Ayenia crenulata** (Wall. ex Mast.) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria crenulata* Wall. ex Mast., *Fl. Brit. India* 1(2): 376. 1874.
- Ayenia cristobaliana** (Dorr) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria cristobaliana* Dorr, *Kew Bull.* 54: 991. 2000.
- Ayenia crotonoides** Christenh. & Byng, *nom. nov.* Replaced synonym: *Byttneria fruticosa* K.Schum. ex Engl., *Abh. Königl. Akad. Wiss. Berlin* 1894: 33. 1894, not: *Ayenia fruticosa* Rose. Etymology: Named for its superficial resemblance to *Croton* (Euphorbiaceae).
- Ayenia dahomensis** (N.Hallé) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria dahomensis* N.Hallé, *Adansonia* sér. 2, 2: 287. 1962.
- Ayenia decaryana** (Arènes) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria decaryana* Arènes, *Mém. Inst. Sci. Madagascar, Sér. B, Biol. Vég.* 7: 94. 1956.
- Ayenia divaricata** (Benth.) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria divaricata* Benth., *J. Bot. (Hooker)* 4: 124. 1841.
- Ayenia echinata** (Wall. ex Kurz) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria echinata* Wall. ex Kurz, *Forest Fl. Burma* 1: 151. 1877.
- Ayenia elliptica** (Pohl) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria elliptica* Pohl, *Pl. Bras. Icon. Descr.* 2: 71. 1830.
- Ayenia ellipticifolia** (Arènes) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria ellipticifolia* Arènes, *Mém. Inst. Sci. Madagascar, Sér. B, Biol. Vég.* 7: 101. 1956
- Ayenia engleri** Christenh. & Byng, *nom. nov.* Replaced synonym: *Byttneria glabra* K.Schum. & Engl., *Bot. Jahrb. Syst.* 39: 592. 1907, not: *Ayenia glabra*

S.Watson. Etymology: Named for Heinrich G.A. Engler, who first described this species together with Karl Schumann.

**Ayenia fernandesii (Cristóbal) Christenh. & Byng, comb. nov.** Basionym: *Byttneria fernandesii* Cristóbal, *Bonplandia (Corrientes)* 4: 99. 1976.

**Ayenia filipes (Mart. ex K.Schum.) Christenh. & Byng, comb. nov.** Basionym: *Byttneria filipes* Mart. ex K.Schum., *Fl. Bras. (Martius)* 12: 95. 1886.

**Ayenia flexuosa (Killip) Christenh. & Byng, comb. nov.** Basionym: *Byttneria flexuosa* Killip, *J. Wash. Acad. Sci.* 24: 50. 1934.

**Ayenia fluvialis (Fryxell & Guadarr.) Christenh. & Byng, comb. nov.** Basionym: *Byttneria fluvialis* Fryxell & Guadarr., *Brittonia* 53: 59. 2001.

**Ayenia fulva (Poepp.) Christenh. & Byng, comb. nov.** Basionym: *Byttneria fulva* Poepp., *Nov. Gen. Sp. Pl. (Poeppig & Endlicher)* 3: 73. 1845.

**Ayenia gayana (A.St.-Hil.) Christenh. & Byng, comb. nov.** Basionym: *Byttneria gayana* A.St.-Hil., *Fl. Bras. Merid. (quarto ed.)* 1: 145. 1825.

**Ayenia genistella (Triana & Planch.) Christenh. & Byng, comb. nov.** Basionym: *Byttneria genistella* Triana & Planch., *Ann. Sci. Nat., Bot. sér. 4*, 17: 333. 1862.

**Ayenia glazioui (Hochr.) Christenh. & Byng, comb. nov.** Basionym: *Byttneria glazioui* Hochr., *Annaire Conserv. Jard. Bot. Genève* 11–12: 7. 1907.

**Ayenia gracilipes (Decne. ex Baill.) Christenh. & Byng, comb. nov.** Basionym: *Byttneria gracilipes* Decne. ex Baill., *Adansonia* 2: 167. 1861.

**Ayenia grandifolia (DC.) Christenh. & Byng, comb. nov.** Basionym: *Byttneria grandiflora* DC., *Prodri. [A. P. de Candolle]* 1: 486. 1824.

**Ayenia guineensis (Keay & Milne-Redh.) Christenh. & Byng, comb. nov.** Basionym: *Byttneria guineensis* Keay & Milne-Redh., *Kew Bull.* 9: 263. 1954.

**Ayenia hatschbachii (Cristóbal) Christenh. & Byng, comb. nov.** Basionym: *Byttneria hatschbachii* Cristóbal, *Bonplandia (Corrientes)* 4: 307. 1976.

**Ayenia heteromorpha (Arènes) Christenh. & Byng, comb. nov.** Basionym: *Byttneria heteromorpha* Arènes, *Mém. Inst. Sci. Madagascar, Sér. B, Biol. Vég.* 7: 85. 1956.

**Ayenia heterophylla (Hook.) Christenh. & Byng, comb. nov.** Basionym: *Byttneria heterophylla* Hook., *Bot. Misc.* 1: 291. 1830.

**Ayenia hirsuta (Ruiz & Pav.) Christenh. & Byng, comb. nov.** Basionym: *Byttneria hirsuta* Ruiz & Pav., *Fl. Peruv.* 3: 10. 1802.

**Ayenia humbertiana (Arènes) Christenh. & Byng, comb. nov.** Basionym: *Byttneria humbertiana* Arènes, *Mém. Inst. Sci. Madagascar, Sér. B, Biol. Vég.* 7: 95. 1956.

**Ayenia implicabilis (Cristóbal) Christenh. & Byng,**

**comb. nov.** Basionym: *Byttneria implicabilis* Cristóbal, *Bonplandia (Corrientes)* 4: 190. 1976.

**Ayenia indica Christenh. & Byng, nom. nov.** Replaced synonym: *Byttneria pilosa* Roxb., *Fl. Ind., ed. 1820* 2: 381. 1824, not: *Ayenia pilosa* Cristóbal. Etymology: This species occurs in India, hence the name.

**Ayenia integrifolia (Lace) Christenh. & Byng, comb. nov.** Basionym: *Byttneria integrifolia* Lace, *Bull. Misc. Inform. Kew* : 396. 1915.

**Ayenia irwinii (Cristóbal) Christenh. & Byng, comb. nov.** Basionym: *Byttneria irwinii* Cristóbal, *Bonplandia (Corrientes)* 4: 285. 1976.

**Ayenia ivorensis (N.Hallé) Christenh. & Byng, comb. nov.** Basionym: *Byttneria ivorensis* N.Hallé, *Adansonia* sér. 2, 2: 287. 1962. Note: This species is extinct (Assi, 1998).

**Ayenia jaculifolia (Pohl) Christenh. & Byng, comb. nov.** Basionym: *Byttneria jaculifolia* Pohl, *Pl. Bras. Icon. Descr.* 2: 77. 1830.

**Ayenia jaramilloana (Dorr) Christenh. & Byng, comb. nov.** Basionym: *Byttneria jaramilloana* Dorr, *BioLlania, Ed. Espec.* 6: 305. 1997.

**Ayenia lancifolia (A.St.-Hil. & Naudin) Christenh. & Byng, comb. nov.** Basionym: *Byttneria lancifolia* A.St.-Hil. & Naudin, *Ann. Sci. Nat., Bot. sér. 2*, 18: 32. 1842.

**Ayenia lappa Christenh. & Byng, nom. nov.** Replaced synonym: *Byttneria ovata* Lam., *Encycl.* 1(2): 522. 1785, not: *Ayenia ovata* Hemsl. Etymology: From Latin *lappa*, a bur.

**Ayenia lasiophylla (Cristóbal) Christenh. & Byng, comb. nov.** Basionym: *Byttneria lasiophylla* Cristóbal, *Bonplandia (Corrientes)* 4: 299. 1976.

**Ayenia latipetala (Arènes) Christenh. & Byng, comb. nov.** Basionym: *Byttneria latipetala* Arènes, *Mém. Inst. Sci. Madagascar, Sér. B, Biol. Vég.* 7: 107. 1956.

**Ayenia lobata (Baill.) Christenh. & Byng, comb. nov.** Basionym: *Byttneria lobata* Baill., *Bull. Mens. Soc. Linn. Paris* 1: 503. 1885.

**Ayenia lopezmirandae (Cristóbal) Christenh. & Byng, comb. nov.** Basionym: *Byttneria lopezmirandae* Cristóbal, *Bonplandia (Corrientes)* 4: 159. 1976, as '*lopez-mirandae*'.

**Ayenia loxensis (Cristóbal) Christenh. & Byng, comb. nov.** Basionym: *Byttneria loxensis* Cristóbal, *Bonplandia (Corrientes)* 4: 102. 1976.

**Ayenia lucida (Arènes) Christenh. & Byng, comb. nov.** Basionym: *Byttneria lucida* Arènes, *Mém. Inst. Sci. Madagascar, Sér. B, Biol. Vég.* 7: 108. 1956.

**Ayenia macrantha (Arènes) Christenh. & Byng, comb. nov.** Basionym: *Byttneria macrantha* Arènes, *Mém. Inst. Sci. Madagascar, Sér. B, Biol. Vég.* 7: 89. 1956.

**Ayenia melantha (Mart. ex K.Schum.) Christenh. & Byng, comb. nov.** Basionym: *Byttneria melantha*

- Mart. ex K.Schum., *Fl. Bras. (Martius)* 12(3): 98. 1886.
- Ayenia melastomifolia (A.St.-Hil.) Christenh. & Byng, comb. nov.** Basionym: *Bytneria melastomifolia* A.St.-Hil., *Fl. Bras. Merid. (quarto ed.)* 1(4): 144. 1825, as '*melastomaefolia*'.
- Ayenia melleri (Baker) Christenh. & Byng, comb. nov.** Basionym: *Bytneria melleri* Baker, *J. Linn. Soc., Bot.* 22: 451. 1886.
- Ayenia microphylla (Jacq.) Christenh. & Byng, comb. nov.** Basionym: *Bytneria microphylla* Jacq., *Hort. Bot. Vindob.* 1: 10. 1770.
- Ayenia minytricha (Cristóbal) Christenh. & Byng, comb. nov.** Basionym: *Bytneria minytricha* Cristóbal, *Bonplandia (Corrientes)* 4: 204. 1976.
- Ayenia morii (L.C.Barnett & Dorr) Christenh. & Byng, comb. nov.** Basionym: *Bytneria morii* L.C.Barnett & Dorr, *Brittonia* 42: 271. 1990.
- Ayenia nitidula (Baker) Christenh. & Byng, comb. nov.** Basionym: *Bytneria nitidula* Baker, *J. Linn. Soc., Bot.* 25: 304. 1889.
- Ayenia nossibeensis (Arènes) Christenh. & Byng, comb. nov.** Basionym: *Bytneria nossibeensis* Arènes, Mém. Inst. Sci. Madagascar, Sér. B, Biol. Vég. 7: 109. 1956.
- Ayenia obcordata (Arènes) Christenh. & Byng, comb. nov.** Basionym: *Bytneria obcordata* Arènes, Mém. Inst. Sci. Madagascar, Sér. B, Biol. Vég. 7: 109. 1956.
- Ayenia obliqua (Benth.) Christenh. & Byng, comb. nov.** Basionym: *Bytneria obliqua* Benth., *J. Bot. (Hooker)* 4: 124. 1842.
- Ayenia oblongata (Pohl) Christenh. & Byng, comb. nov.** Basionym: *Bytneria oblongata* Pohl, *Pl. Bras. Icon. Descr.* 2: 74. 1830.
- Ayenia oblongifolia (Arènes) Christenh. & Byng, comb. nov.** Basionym: *Bytneria oblongifolia* Arènes, Mém. Inst. Sci. Madagascar, Sér. B, Biol. Vég. 7: 102. 1956.
- Ayenia obtusata (Benth.) Christenh. & Byng, comb. nov.** Basionym: *Bytneria obtustata* Benth. ex Hochr., *Annuaire Conserv. Jard. Bot. Genève* 11–12: 5. 1907.
- Ayenia oligantha (Arènes) Christenh. & Byng, comb. nov.** Basionym: *Bytneria oligantha* Arènes, *Occas. Pap. Bernice Pauahi Bishop Mus.* 14: 313. 1939.
- Ayenia oranensis (Cristóbal) Christenh. & Byng, comb. nov.** Basionym: *Bytneria oranensis* Cristóbal, *Bonplandia (Corrientes)* 4: 365. 1976.
- Ayenia ostenii (Cristóbal) Christenh. & Byng, comb. nov.** Basionym: *Bytneria ostenii* Cristóbal, *Bonplandia (Corrientes)* 4: 226. 1976.
- Ayenia ovatifolia (Arènes) Christenh. & Byng, comb. nov.** Basionym: *Bytneria ovatifolia* Arènes, Mém. Inst. Sci. Madagascar, Sér. B, Biol. Vég. 7: 105. 1956.
- Ayenia palustris (Cristóbal) Christenh. & Byng, comb. nov.** Basionym: *Bytneria palustris* Cristóbal,
- Bonplandia (Corrientes)* 4: 276. 1976.
- Ayenia pauxilla Christenh. & Byng, nom. nov.** Replaced synonym: *Bytneria parviflora* Benth., *Pl. Hartw.* 114. 1843, not: *Ayenia parviflora* Sessé & Moc. Etymology: From Latin *pauxillum*, little, because it has small flowers.
- Ayenia pedersenii (Cristóbal) Christenh. & Byng, comb. nov.** Basionym: *Bytneria pedersenii* Cristóbal, *Bonplandia (Corrientes)* 4: 314. 1976.
- Ayenia perrieri (Hochr.) Christenh. & Byng, comb. nov.** Basionym: *Bytneria perrieri* Hochr., *Candollea* 3: 145. 1926.
- Ayenia pescrapaeifolia (Britton) Christenh. & Byng, comb. nov.** Basionym: *Bytneria pescrapaeifolia* Britton, *Bull. Torrey Bot. Club* 16: 155. 1889.
- Ayenia petiolata (Cristóbal) Christenh. & Byng, comb. nov.** Basionym: *Bytneria petiolata* Cristóbal, *Bonplandia (Corrientes)* 4: 279. 1976.
- Ayenia piresii (Cristóbal) Christenh. & Byng, comb. nov.** Basionym: *Bytneria piresii* Cristóbal, *Bonplandia (Corrientes)* 4: 380. 1976.
- Ayenia pohlii Christenh. & Byng, nom. nov.** Replaced synonym: *Bytneria dentata* Pohl, *Pl. Bras. Icon. Descr.* 2: 79. 1830, not: *Ayenia dentata* Brandegee. Etymology: Named for Johann B.E. Pohl, who first described this species.
- Ayenia ramosissima (Pohl) Christenh. & Byng, comb. nov.** Basionym: *Bytneria ramosissima* Pohl, *Pl. Bras. Icon. Descr.* 2: 75. 1830.
- Ayenia rhamnifolia (Benth.) Christenh. & Byng, comb. nov.** Basionym: *Bytneria rhamnifolia* Benth., *Hooker's J. Bot. Kew Gard. Misc.* 3: 164. 1851.
- Ayenia rojasii (Cristóbal) Christenh. & Byng, comb. nov.** Basionym: *Bytneria rojasii* Cristóbal, *Bonplandia (Corrientes)* 4: 296. 1976.
- Ayenia rubriflora (Arènes) Christenh. & Byng, comb. nov.** Basionym: *Bytneria rubriflora* Arènes, Mém. Inst. Sci. Madagascar, Sér. B, Biol. Vég. 7: 107. 1956.
- Ayenia sagasteguii (Cristóbal) Christenh. & Byng, comb. nov.** Basionym: *Bytneria sagasteguii* Cristóbal, *Novon* 13: 302. 2003.
- Ayenia sagittifolia (A.St.-Hil.) Christenh. & Byng, comb. nov.** Basionym: *Bytneria sagittifolia* A.St.-Hil., *Fl. Bras. Merid. (quarto ed.)* 1(4): 142. 1825.
- Ayenia sambiranensis (Arènes) Christenh. & Byng, comb. nov.** Basionym: *Bytneria sambiranensis* Arènes, Mém. Inst. Sci. Madagascar, Sér. B, Biol. Vég. 7: 104. 1956.
- Ayenia scabra (L.) Christenh. & Byng, comb. nov.** Basionym: *Bytneria scabra* L., *Syst. Nat.*, ed. 10, 2: 939. 1759.
- Ayenia scapellata (Pohl) Christenh. & Byng, comb. nov.** Basionym: *Bytneria scapellata* Pohl, *Pl. Bras. Icon.*

Descr. 2: 78. 1830.

- Ayenia schumannii** (Cristóbal) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria schumannii* Cristóbal, *Bonplandia* (*Corrientes*) 4: 208. 1976.
- Ayenia schunkei** (Cristóbal) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria schunkei* Cristóbal, *Bol. Soc. Argent. Bot.* 24: 125. 1985.
- Ayenia sparrei** (Cristóbal) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria sparrei* Cristóbal, *Bonplandia* (*Corrientes*) 4: 146. 1976.
- Ayenia stenophylla** (Cristóbal) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria stenophylla* Cristóbal, *Bonplandia* (*Corrientes*) 4: 261. 1976.
- Ayenia subsessilis** (Cristóbal) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria subsessilis* Cristóbal, *Bonplandia* (*Corrientes*) 4: 271. 1976.
- Ayenia triadenia** (Cristóbal) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria triadenia* Cristóbal, *Bonplandia* (*Corrientes*) 4: 194. 1976.
- Ayenia tucumanensis** (Cristóbal) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria tucumanensis* Cristóbal, *Bonplandia* (*Corrientes*) 4: 211. 1976.
- Ayenia uaupensis** (Spruce ex K.Schum.) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria uaupensis* Spruce ex K.Schum., *Fl. Bras. (Martius)* 12: 93. 1886.
- Ayenia urosepala** (Mildbr.) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria urosepala* Mildbr., *Notizbl. Bot. Gart. Berlin-Dahlem* 11: 144. 1931.
- Ayenia urticifolia** (K.Schum.) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria urticifolia* K.Schum., *Fl. Bras. (Martius)* 12: 98. 1886.
- Ayenia vargasii** (Cristóbal) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria vargasii* Cristóbal, *Bonplandia* (*Corrientes*) 4: 151. 1976.
- Ayenia vitifolia** (Baill.) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria vitifolia* Baill., *Adansonia* 10: 177. 1872.
- Ayenia voulily** (Baill.) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria voulily* Baill., *Bull. Mens. Soc. Linn. Paris* 1: 502. 1885.
- Ayenia weberbaueri** (Mildbr.) Christenh. & Byng, *comb. nov.* Basionym: *Byttneria weberbaueri* Mildbr., *Notizbl. Bot. Gart. Berlin-Dahlem* 11: 145. 1931.
- Commersonia rhamnoides** (Seem.) Christenh. & Byng, *comb. nov.* Basionym: *Pimia rhamnoides* Seem., *Bonplandia* 10: 366. 1862.

**250. Bixaceae.** Reference: Johnson-Fulton & Watson (2017).

**Note:** *Amoreuxia* Moq. was found to make *Cochlospermum* Kunth paraphyletic. As the genera are not very divergent and morphologically similar,

we decided to unite them.

- Cochlospermum gonzalezii** (Sprague & L.Riley) Byng & Christenh., *comb. nov.* Basionym: *Amoreuxia gonzalezii* Sprague & L.Riley, *Bull. Misc. Inform. Kew* 1922: 102. 1922.
- Cochlospermum malvifolium** (A.Gray) Byng & Christenh., *comb. nov.* Basionym: *Amoreuxia malvifolia* A.Gray, *Smithsonian Contr. Knowl.* 3(5): 29. 1852.
- Cochlospermum palmatifidum** (Moc. & Sessé ex DC.) Byng & Christenh., *comb. nov.* Basionym: *Amoreuxia palmatifida* Moc. & Sessé ex DC., *Prodr. 2: 638. 1825.*
- Cochlospermum wrightii** (A.Gray) Byng & Christenh., *comb. nov.* Basionym: *Amoreuxia wrightii* A.Gray, *Smithsonian Contr. Knowl.* 5: 26. 1853.

**251. Cistaceae.** References: Civeyrel et al. (2011), Sun et al. (2016).

**Note:** Neither *Halimium* Spach and *Cistus* L. form a monophyletic group in numerous studies (e.g. Civeyrel et al., 2011, Sun et al., 2016). Although, traditionally treated separately based on flower colour and locule number the two genera share numerous morphological characters and even share the same chromosome number (2n=18), which is different from all other genera in the family. They also hybridise in the wild and in cultivation making delimitation even more difficult. We propose to place *Halimium* in *Cistus* to create a morphological coherent and monophyletic group.

- Cistus commutatus** (Pau) Byng & Christenh., *comb. nov.* Basionym: *Halimium commutatum* Pau, *Bol. Soc. Aragonesa Ci. Nat.* 3: 263. 1904. (Figure 16A)
- Cistus lasiocalycinus** (Boiss. & Reut.) Byng & Christenh., *comb. nov.* Basionym: *Helianthemum lasiocalycinum* Boiss. & Reut., *Diagn. Pl. Orient. ser. 2, 1: 50. 1854.*
- Cistus macrocalycinus** (Pau) Byng & Christenh., *comb. nov.* Basionym: *Helianthemum atriplicifolium* Willd. var. *macrocalycinum* Pau, *Iter Marocc.* 1928: no. var. *macrocalycinum* Pau, *Iter Marocc.* 1928: no. 279. 1929.

**268. Capparaceae.** Reference: Tamboli (2018).

**Note:** The circumscription of the genus *Capparis* L. has been in flux in recent times. Molecular data has shown that there are basically three clades, one New World clade and an Old World clade, with a number of African Capparaceae genera (*Boscia* Lam., *Cadaba* Forssk., *Maerua* Forssk., *Ritchiea* B.R. ex G.Don and *Thilachium* Lour.) sister to the Old World *Capparis* that includes Australian *Apophyllum* F.Muell., which is here transferred. *Dhofaria* A.G.Mill. was not sampled, but is morphologically similar to

*Apophyllum* and is hence also placed in *Capparis*. The circumscription of American *Capparis* species has been contentious and even though a high degree of splitting can be applied, many of these genera will still not be monophyletic and not all taxa have been transferred from *Capparis*. It is thus best to treat all New World *Capparis* as a single genus, the name *Morisonia* L. having nomenclatural priority. Sister to all other Capparaceae is a clade composed of *Crateva* L. with *Euadenia* Oliv. embedded in it, the latter of which is also hereby transferred.

***Capparis anomala* (F.Muell.) Christenh. & Byng, comb. nov.** Basionym: *Apophyllum anomalum* F.Muell., Hooker's J. Bot. Kew Gard. Misc. 9: 307. 1857. (Figure 16C)

***Capparis macleishii* (A.G.Mill.) Christenh. & Byng, comb. nov.** Basionym: *Dhofaria macleishii* A.G.Mill., Notes Roy. Bot. Gard., Edinburgh 45: 55. 1988.

***Crateva brevipetala* (Exell) Christenh. & Byng, comb. nov.** Basionym: *Euadenia brevipetala* Exell, J. Bot. 73 (Suppl.): 12. 1935.

***Crateva eminens* (Hook.f.) Christenh. & Byng, comb. nov.** Basionym: *Euadenia eminens* Hook.f., Bot. Mag. 107: t. 6578. 1881. (Figure 16B)

***Crateva kirkii* (Oliv.) Christenh. & Byng, comb. nov.** Basionym: *Euadenia kirkii* Oliv., Fl. Trop. Afr. 1: 91. 1868.

***Crateva monticola* (Gilg & Gilg-Ben.) Christenh. & Byng, comb. nov.** Basionym: *Euadenia monticola* Gilg & Gilg-Ben., Bot. Jahrb. Syst. 53: 170. 1915. Replaced synonym: *Euadenia trifoliata* (Vahl) Oliv.; syn.: *Stroemia trifoliata* Schumach. & Thonn., nor: *Crateva trifoliata* (Roxb.) B.S.Sun

***Morisonia alainiana* (Cornejo & Iltis) Christenh. & Byng, comb. nov.** Basionym: *Quadrella alainiana* Cornejo & Iltis, J. Bot. Res. Inst. Texas 4: 75. 2010.

***Morisonia amplissima* (Lam.) Christenh. & Byng, comb. nov.** Basionym: *Capparis amplissima* Lam., Encycl. 1: 607. 1785.

***Morisonia angustifolia* (Kunth) Christenh. & Byng, comb. nov.** Basionym: *Capparis angustifolia* Kunth, Nov. Gen. Sp. Pl. 5: 46. 1821.

***Morisonia antonensis* (Woodson) Christenh. & Byng, comb. nov.** Basionym: *Capparis antonensis* Woodson, Ann. Missouri Bot. Gard. 35: 90. 1948.

***Morisonia asperifolia* (C.Presl) Christenh. & Byng, comb. nov.** Basionym: *Capparis asperifolia* C.Presl, Reliq. Haenk. 2:86. 1835.

***Morisonia atamisquea* (Kuntze) Christenh. & Byng, comb. nov.** Basionym: *Capparis atamisquea* Kuntze, Revis. Gen. Pl. 3: 6. 1898.

***Morisonia bahiana* (Cornejo & Iltis) Christenh. & Byng, comb. nov.** Basionym: *Colicodendron bahianum*

Cornejo & Iltis, J. Bot. Res. Inst. Texas 2: 76. 2008.

***Morisonia bonifaziana* (Carnejo & Iltis) Christenh. & Byng, comb. nov.** Basionym: *Capparis bonifaziana* Cornejo & Iltis, Novon 15: 397. 2005.

***Morisonia brasiliiana* (Banks ex DC.) Christenh. & Byng, comb. nov.** Basionym: *Capparis brasiliiana* Banks ex DC., Prodr. 1: 249. 1824.

***Morisonia brasiliiana* (DC.) Christenh. & Byng, comb. nov.** Basionym: *Capparis brasiliiana* DC., Prodr. 1: 249. 1824.

***Morisonia breynia* (L.) Christenh. & Byng, comb. nov.** Basionym: *Capparis breynia* L., Syst. Pl. ed. 10: 1071. 1759. Replaced synonym: *Breynia indica* L., Sp. Pl. 1: 503. 1753, nom. rej.

***Morisonia calciphila* (Standl. & Steyermark) Christenh. & Byng, comb. nov.** Basionym: *Capparis calciphila* Standl. & Steyermark, Field. Mus. Bot. 23: 158. 1944.

***Morisonia coimbrana* (Cornejo & Iltis) Christenh. & Byng, comb. nov.** Basionym: *Capparis coimbrana* Cornejo & Iltis, Brittonia 57: 155. 2005.

***Morisonia crotonoides* (Kunth) Christenh. & Byng, comb. nov.** Basionym: *Capparis crotonoides* Kunth, Nov. Gen. Sp. Pl. (quarto ed.) 5: 95. 1821.

***Morisonia cuatrecasana* (Dugand) Christenh. & Byng, comb. nov.** Basionym: *Capparis cuatrecasana* Dugand, Caldasia 1: 41. 1941.

***Morisonia cynophallophora* (L.) Christenh. & Byng, comb. nov.** Basionym: *Capparis cynophallophora* L., Sp. Pl.: 504. 1753.

***Morisonia declinata* (Vell.) Christenh. & Byng, comb. nov.** Basionym: *Capparis declinata* Vell., Fl. Flumin.: 230. 1829.

***Morisonia detonsa* (Triana & Planch.) Christenh. & Byng, comb. nov.** Basionym: *Capparis detonsa* Triana & Planch., Ann. Sci. Nat., Bot., sér. 4, 17: 80. 1862.

***Morisonia didymobotrys* (Ruiz & Pav. ex DC.) Christenh. & Byng, comb. nov.** Basionym: *Capparis didymobotrys* Ruiz & Pav. ex DC., Prodr. 1: 253. 1824.

***Morisonia discolor* (Donn.Sm.) Christenh. & Byng, comb. nov.** Basionym: *Capparis discolor* Donn.Sm., Bot. Gaz. 24: 389. 1897.

***Morisonia dolichopoda* (Helwig) Christenh. & Byng, comb. nov.** Basionym: *Capparis dolichopoda* Helwig, Ark. Bot. 22A, no. 10: 11. 1929.

***Morisonia domingensis* (Spreng. ex DC.) Christenh. & Byng, comb. nov.** Basionym: *Capparis domingensis* Spreng. ex DC., Prodr. 1: 253. 1824.

***Morisonia dressleri* (Cornejo & Iltis) Christenh. & Byng, comb. nov.** Basionym: *Quadrella dressleri* Cornejo & Iltis, J. Bot. Res. Inst. Texas 4: 77. 2010.

***Morisonia ecuadorica* (Iltis) Christenh. & Byng, comb. nov.** Basionym: *Capparis ecuadorica* Iltis, Selbyana



Figure 16: **Angiosperms (Eudicots).** A, *Cistus commutatus* (Pau) Byng & Christenh.; B, *Crateva eminens* (Hook.f.) Christenh. & Byng; C, *Capparis anomala* (F.Muell.) Christenh. & Byng; D, *Goniolimon salicorniaceum* (F.Muell.) Christenh. & Byng; E, *Morisonia frondosa* (Jacq.) Christenh. & Byng; F, *Sesamum trilobum* (Bernh.) Byng & Christenh.; and G, *Morisonia paradoxa* (Jacq.) Christenh. & Byng. All images © Maarten Christenhusz.

- 2: 303. 1978.
- Morisonia elegans** (Mart.) Christenh. & Byng, comb. nov. Basionym: *Capparis elegans* Mart., Flora 22 (1, Beibl. 1): 24. 1839.
- Morisonia ferruginea** (L.) Christenh. & Byng, comb. nov. Basionym: *Capparis ferruginea* L., Syst. Nat., ed. 10: 1071. 1759.
- Morisonia filipes** (Donn.Sm.) Christenh. & Byng, comb. nov. Basionym: *Capparis filipes* Donn.Sm., Bot. Gaz. 23: 2. 1897.
- Morisonia frondosa** (Jacq.) Christenh. & Byng, comb. nov. Basionym: *Capparis frondosa* Jacq., Enum. Syst. Pl.: 24. 1760. (Figure 16E)
- Morisonia gonaivensis** (Helwig) Christenh. & Byng, comb. nov. Basionym: *Capparis gonaivensis* Helwig, Ark. Bot. 22A: 10. 1929.
- Morisonia grandiflora** (Cornejo & Iltis.) Christenh. & Byng, comb. nov. Basionym: *Capparidastrum grandiflorum* Cornejo & Iltis, Harvard Pap. Bot. 15: 155. 2010.
- Morisonia guayaquilensis** (Kunth) Christenh. & Byng, comb. nov. Basionym: *Capparis guayaquilensis* Kunth, Nov. Gen. Sp. Pl. (quarto ed.) 5: 89. 1821.
- Morisonia hagenii** (H.Karst.) Christenh. & Byng, comb. nov. Basionym: *Belencita hagenii* H.Karst., Berliner Allg. Gartenz. 25: 25. 1857.
- Morisonia hastata** (Jacq.) Christenh. & Byng, comb. nov. Basionym: *Capparis hastata* Jacq., Enum. Syst. Pl.: 23. 1760.
- Morisonia heterophylla** (Ruiz & Pav. ex DC.) Christenh. & Byng, comb. nov. Basionym: *Capparis heterophylla* Ruiz & Pav. ex DC., Prodr. 1: 250. 1824.
- Morisonia heydeana** (Donn.Sm.) Christenh. & Byng, comb. nov. Basionym: *Capparis heydeana* Donn. Sm., Bot. Gaz. 18: 197. 1893.
- Morisonia humilis** (Jacq.) Christenh. & Byng, comb. nov. Basionym: *Capparis humilis* Hassl., Repert. Spec. Nov. Regni Veg. 12: 252. 1913.
- Morisonia incana** (Kunth) Christenh. & Byng, comb. nov. Basionym: *Capparis incana* Kunth, Nov. Gen. Sp. 5: 94. 1821.
- Morisonia isthmensis** (Eichler) Christenh. & Byng, comb. nov. Basionym: *Capparis isthmensis* Eichler in Martius, Fl. Bras. 13: 269. 1865.
- Morisonia jamaicensis** (Jacq.) Christenh. & Byng, comb. nov. Basionym: *Capparis jamaicensis* Jacq., Enum. Pl. Carib. 23. 1760.
- Morisonia lindeniana** (Cornejo & Iltis) Christenh. & Byng, comb. nov. Basionym: *Quadrella lindeniana* Cornejo & Iltis, J. Bot. Res. Inst. Texas 4: 83. 2010.
- Morisonia linearis** (Jacq.) Christenh. & Byng, comb. nov. Basionym: *Capparis linearis* Jacq., Enum. Syst. Pl. 24: 1760.
- Morosonia lineata** (Dombey ex Pers.) Christenh. & Byng, comb. nov. Basionym: *Capparis lineata* Dombey ex Pers., Syn. Pl. 2: 60. 1807.
- Morisonia longifolia** (Mart.) Christenh. & Byng, comb. nov. Basionym: *Colicodendron longifolium* Mart., Flora 22 (2, Beibl. 1): 26. 1839.
- Morisonia lundellii** (Standl.) Christenh. & Byng, comb. nov. Basionym: *Capparis lundellii* Standl., Carnegie Inst. Wash. Publ. 461: 57. 1935.
- Morisonia macrantha** (Standl.) Christenh. & Byng, comb. nov. Basionym: *Steriphoma macranthum* Standl., Contr. U.S. Natl. Herb. 20: 183. 1919, as 'macrantha'.
- Morisonia macrophylla** (Kunth) Christenh. & Byng, comb. nov. Basionym: *Capparis macrophylla* Kunth, Nov. Gen. Sp. (quarto ed.) 5: 91. 1821.
- Morisonia martiana** (Cornejo) Christenh. & Byng, comb. nov. Basionym: *Colicodendron martianum* Cornejo, Harvard Pap. Bot. 15: 103. 2010.
- Morisonia matogrossensis** (Pilg.) Christenh. & Byng, comb. nov. Basionym: *Capparis matogrossensis* Pilg., Rev. Mus. Paul. Univ. São Paulo 13: 1250. 1922.
- Morisonia megalosperma** (Cornejo & Iltis) Christenh. & Byng, comb. nov. Basionym: *Capparidastrum megalospermum* Cornejo & Iltis, Harvard Pap. Bot. 15: 159. 2010.
- Morisonia mirifica** (Standl.) Christenh. & Byng, comb. nov. Basionym: *Capparis mirifica* Standl. in Woodson & Schery, Ann. Missouri Bot. Gard. 27: 311. 1940.
- Morisonia mollicella** (Standl.) Christenh. & Byng, comb. nov. Basionym: *Capparis mollicella* Standl., Proc. Biol. Soc. Washington 37: 44. 1924.
- Morisonia morenoi** (Cornejo & Iltis) Christenh. & Byng, comb. nov. Basionym: *Quadrella morenoi* Cornejo & Iltis, J. Bot. Res. Inst. Texas 4: 86. 2010.
- Morisonia nemorosa** (Jacq.) Christenh. & Byng, comb. nov. Basionym: *Capparis nemorosa* Jacq., Enum. Syst. Pl. 24. 1760.
- Morisonia odoratissima** (Jacq.) Christenh. & Byng, comb. nov. Basionym: *Capparis odoratissima* Jacq., Hort. Schoenbr. 1: 57. 1797.
- Morisonia osmantha** (Diels) Christenh. & Byng, comb. nov. Basionym: *Capparis osmantha* Diels, Notizbl. Bot. Gart. Berlin-Dahlem 14: 332. 1939.
- Morisonia pachaca** (Kunth) Christenh. & Byng, comb. nov. Basionym: *Capparis pachaca* Kunth, Nov. Gen. Sp. Pl. (quarto ed.) 5: 93. 1821.
- Morisonia panamensis** (Iltis) Christenh. & Byng, comb. nov. Basionym: *Capparis panamensis* Iltis, Ann. Missouri Bot. Gard. 68: 681. 1981.
- Morisonia paradoxa** (Jacq.) Christenh. & Byng, comb. nov. Basionym: *Capparis paradoxa* Jacq., Pl. Hort.

- Schoenbr. 1: 58. 1797. (Figure 16G)
- Morisonia peruviana** (Spruce ex Echler) Christenh. & Byng, comb. nov. Basionym: *Steriphoma peruvianum* Spruce ex Eichler in Mart., *Fl. Bras.* 13: 267. 1865.
- Morisonia petiolaris** (Kunth) Christenh. & Byng, comb. nov. Basionym: *Capparis petiolaris* Kunth, *Nov. Gen. Sp. Pl. (quarto ed.)* 5: 91. 1821.
- Morisonia pittieri** (Standl.) Christenh. & Byng, comb. nov. Basionym: *Capparis pittieri* Standl., *J. Wash. Acad. Sci.* 17: 253. 1927.
- Morisonia polyantha** (Triana & Planch.) Christenh. & Byng, comb. nov. Basionym: *Capparis polyantha* Triana & Planch., *Ann. Sci. Nat., Bot.*, sér. 4, 17: 76. 1862.
- Morisonia pringlei** (Briq.) Christenh. & Byng, comb. nov. Basionym: *Capparis pringlei* Briq., *Ann. Conserv. & Jard. Bot. Genève* 17: 390. 1914.
- Morisonia pulcherrima** (Jacq.) Christenh. & Byng, comb. nov. Basionym: *Capparis pulcherrima* Jacq., *Enum. Syst. Pl.* 24: 1760.
- Morisonia quina** (J.F.Macbr.) Christenh. & Byng, comb. nov. Basionym: *Capparis quina* J.F.Macbr., *Candollea* 5: 357. 1934.
- Morisonia quintanaroensis** (Iltis & Cornejo) Christenh. & Byng, comb. nov. Basionym: *Quadrella quintanaroensis* Iltis & Cornejo, *J. Bot. Res. Inst. Texas* 4: 104. 2010.
- Morisonia quiriguensis** (Standl.) Christenh. & Byng, comb. nov. Basionym: *Capparis quiriguensis* Standl., *Proc. Biol. Soc. Washington* 37: 52. 1924.
- Morisonia retusa** (Griseb.) Christenh. & Byng, comb. nov. Basionym: *Capparis retusa* Griseb., *Abh. Königl. Ges. Wiss. Göttingen* 24: 18. 1879.
- Morisonia salicifolia** (Griseb.) Christenh. & Byng, comb. nov. Basionym: *Capparis salicifolia* Griseb., *Abh. Königl. Ges. Wiss. Göttingen* 24: 17. 1879.
- Morisonia scabrida** (Kunth) Christenh. & Byng, comb. nov. Basionym: *Capparis scabrida* Kunth, *Nov. Gen. Sp. Pl. (quarto ed.)* 5: 95. 1821.
- Morisonia sclerophylla** (Iltis) Christenh. & Byng, comb. nov. Basionym: *Capparis sclerophylla* Iltis & Cornejo, *Novon* 15: 429. 2005.
- Morisonia sessilis** (Banks ex DC.) Christenh. & Byng, comb. nov. Basionym: *Capparis sessilis* Banks ex DC., *Prodr.* 1: 249. 1824.
- Morisonia siliquosa** (L.) Christenh. & Byng, comb. nov. Basionym: *Capparis siliquosa* L., *Syst. Nat. ed. 10* (2): 1071. 1759.
- Morisonia singularis** (R.Rankin) Christenh. & Byng, comb. nov. Basionym: *Capparis singularis* R.Rankin, *Willdenowia* 34: 263. 2004.
- Morisonia sola** (J.F.Macbr.) Christenh. & Byng, comb. nov. Basionym: *Capparis sola* J.F.Macbr., *Candollea* 5: 359. 1934.
- Morisonia speciosa** (Iltis) Christenh. & Byng, comb. nov. Basionym: *Capparis speciosa* Griseb., *Abh. Königl. Ges. Wiss. Göttingen* 24: 18. 1879.
- Morisonia sprucei** (Eichler) Christenh. & Byng, comb. nov. Basionym: *Capparis sprucei* Eichler in Mart., *Fl. Bras.* 13: 281. 1865.
- Morisonia stenopetala** (Urb.) Christenh. & Byng, comb. nov. Basionym: *Capparis stenosepala* Urb., *Symb. Antill.* 5: 529. 1908.
- Morisonia stephania** Christenh. & Byng, nom. nov. Replaced synonym: *Stephania elliptica* DC., *Prodri.* 1: 253. 1824, not: *Morisonia elliptica* Rusby.
- Morisonia steyermarkii** (Standl.) Christenh. & Byng, comb. nov. Basionym: *Capparis steyermarkii* Standl., *Publ. Field Mus. Nat. Hist., Bot. Ser.* 22: 140. 1940.
- Morisonia tafallana** (Cornejo, Iltis & Cerón) Christenh. & Byng, comb. nov. Basionym: *Capparidastrum tafallanum* Cornejo, Iltis & Cerón, *Harvard Pap. Bot.* 19: 189. 2014.
- Morisonia tarapotensis** (Echler) Christenh. & Byng, comb. nov. Basionym: *Capparis tarapotensis* Echler in Mart., *Fl. Bras.* 13: 284. 1865.
- Morisonia tenuisiliqua** (Jacq.) Christenh. & Byng, comb. nov. Basionym: *Capparis tenuisiliqua* Jacq., *Enum. Syst. Pl.* 24. 1760.
- Morisonia tuxtlaensis** (Cornejo & Iltis) Christenh. & Byng, comb. nov. Basionym: *Capparidastrum tuxtense* Cornejo & Iltis, *Brittonia* 62: 120. 2010.
- Morisonia tweediana** (Eichler) Christenh. & Byng, comb. nov. Basionym: *Capparis tweediana* Eichler in Mart., *Fl. Bras.* 13: 273. 1865.
- Morisonia urbanii** (Eggers) Christenh. & Byng, comb. nov. Basionym: *Steriphoma urbanii* Eggers, *Bot. Zentralbl.* 73: 51. 1898.
- Morisonia valerabella** (Iltis, T.Ruiz & G.S.Bunting) Christenh. & Byng, comb. nov. Basionym: *Colicodendron valerabellum* Iltis, T.Ruiz & G.S.Bunting, *J. Bot. Res. Inst. Texas* 2: 82. 2008.
- Morisonia verrucosa** (Jacq.) Christenh. & Byng, comb. nov. Basionym: *Capparis verrucosa* Jacq., *Enum. Syst. Pl.* 23. 1760.
- Morisonia yco** (Mart.) Christenh. & Byng, comb. nov. Basionym: *Capparis yco* Mart., *Reise Bras.* 2: 599. 1828.
- Morisonia yunckeri** (Standl.) Christenh. & Byng, comb. nov. Basionym: *Capparis yunckeri* Standl., *Publ. Field Mus. Nat. Hist., Bot. Ser.* 9: 291. 1940.
- 269. Cleomaceae.** References: Inda *et al.* (2008), Patchell *et al.* (2014).
- Note:** *Cleome* L. was traditionally considered a single large genus, but the generic concept has narrowed

and diverged adopting a large number of small genera that were long recognised as sections or series (Iltis, 1952). This splitting of an otherwise monophyletic clade seems to be unnecessarily destabilising the classification of this clade and hence here we accept a broader concept of *Cleome*, keeping in mind the monophyly of the genus. The family then consists of four monophyletic genera: *Cleomella* DC., *Peritoma* DC. (incl. *Isomeria* Nutt.), *Rorida* J.F.Gmel. and *Cleome* (now including *Gynandropsis* DC., *Haptocarpum* Ule, *Polanisia* A.Juss., *Puccionia* Chiov., *Siliquaria* Forssk., *Tarenaya* Raf. and others). This requires the fewest number of name changes and is likely to be easily applied by the general user.

***Cleome bahiensis* (Ule) Christenh. & Byng, comb. nov.**  
Basionym: *Haptocarpum bahiense* Ule, Ber. Deutsch. Bot. Ges. 26A: 223. 1908.

***Cleome puccionia* Christenh. & Byng, nom. nov.**  
Replaced synonym: *Puccionia macradenia* Chiov., Fl. Somalia 1: 78. 1929, not: *Cleome macradenia* Schweinf.

**273. Olacaceae.** References: Malecot *et al.* (2004), Malecot & Nickrent (2008), Su *et al.* (2015).

**Note:** *Olax* L. is divided into four sections based on the number of fertile stamens and staminodes: sect. *Pentandrae* Engler (5–6 stamens and 3 staminodes), sect. *Hemiandrae* Engler (6 stamens and 6 staminodes), sect. *Triandrae* Engler (3 stamens and 5 staminodes), and sect. *Estaminodiales* Engler (6 stamens, staminodes lacking). Neotropical *Dulacia* Vellozo was mainly distinguished from paleotropical *Olax* by distyly and is embedded in *Olax*. *Dulacia* have three fertile stamens and six staminodes and this is not so different from the great staminal variation that is found in *Olax*. We hereby make the necessary combinations.

***Olax candida* (Poepp.) Christenh. & Byng, comb. nov.**  
Basionym: *Liriosma candida* Poepp., Nov. Gen. Sp. Pl. (Poeppig & Endlicher) 3: 33, t. 239. 1841.

***Olax crassa* (Monach.) Christenh. & Byng, comb. nov.**  
Basionym: *Liriosma crassa* Monach., Brittonia 13: 114. 1961.

***Olax cyanocarpa* (Sleumer) Christenh. & Byng, comb. nov.**  
Basionym: *Dulacia cyanocarpa* Sleumer, Fl. Neotrop. Monogr. 38: 130. 1984.

***Olax egleri* (J.O.Rangel) Christenh. & Byng, comb. nov.**  
Basionym: *Liriosma egleri* J.O.Rangel, Bol. Mus. Bot. Munic. 14: 1. 1974.

***Olax guianensis* (Engl.) Christenh. & Byng, comb. nov.**  
Basionym: *Liriosma guianensis* Engl., Fl. Bras. (Martius) 12: 25. 1872.

***Olax inopiflora* (Miers) Christenh. & Byng, comb. nov.**  
Basionym: *Liriosma inopiflora* Miers, Ann. Mag. Nat.

*Hist. ser. 3, 4: 362. 1859.*

***Olax papillosa* (J.O.Rangel) Christenh. & Byng, comb. nov.**  
Basionym: *Liriosma papillosa* J.O.Rangel, Bol. Mus. Bot. Munic. 14: 2. 1974.

***Olax redmondii* (Steyermark) Christenh. & Byng, comb. nov.**  
Basionym: *Dulacia redmondii* Steyermark., Phytologia 38: 217. 1978.

***Olax singularis* (Vell.) Christenh. & Byng, comb. nov.**  
Basionym: *Dulacia singularis* Vell., Fl. Flumin. 32. 1829.

***Olax tepuiensis* (Steyermark) Christenh. & Byng, comb. nov.**  
Basionym: *Liriosma tepuiensis* Steyermark., Bol. Soc. Venez. Ci. Nat. 32: 328. 1976.

**276. Santalaceae.** References: Danser (1940, 1955), Der & Nickrent (2008), Kuijt & Hansen (2014).

**Note:** Danser (1940) split *Henslowia* Blume into four separate genera (*Dendromyza* Danser, *Cladomyza* Danser, *Hylomyza* Danser and *Dendrotrophe* Danser) based on fruit morphology. *Hylomyza* was subsequently found to be a synonym of *Dufrenoya* Chati, but as more material was collected it became increasingly difficult to recognise the other three genera as distinct from each other. The general trend in the literature is sinking *Cladomyza* in *Dendromyza*, but synonymising *Dendrotrophe* appears to be premature at this stage.

***Dendromyza acrosclera* (Danser) Byng & Christenh., comb. nov.** Basionym: *Cladomyza acrosclera* Danser, Nova Guinea ser. 2, 4: 138. 1940.

***Dendromyza acutata* (Pilg.) Byng & Christenh., comb. nov.** Basionym: *Henslowia acutata* Pilg., Bot. Jahrb. Syst. 59: 125. 1924.

***Dendromyza angustifolia* (Stauffer) Byng & Christenh., comb. nov.** Basionym: *Cladomyza angustifolia* Stauffer., Mitt. Bot. Mus. Univ. Zurich 242: 64. 1969.

***Dendromyza cuneata* (Danser) Byng & Christenh., comb. nov.** Basionym: *Cladomyza cuneata* Danser, Nova Guinea ser. 2, 4: 137. 1940.

***Dendromyza dendromyzoides* (Stauffer) Byng & Christenh., comb. nov.** Basionym: *Cladomyza dendromyzoides* Stauffer., Mitt. Bot. Mus. Univ. Zurich 242: 62. 1969.

***Dendromyza densa* (Stauffer) Byng & Christenh., comb. nov.** Basionym: *Cladomyza densa* Stauffer., Mitt. Bot. Mus. Univ. Zurich 242: 63. 1969.

***Dendromyza dubia* (Stauffer) Byng & Christenh., comb. nov.** Basionym: *Cladomyza dubia* Stauffer., Mitt. Bot. Mus. Univ. Zurich 242: 65. 1969.

***Dendromyza erecta* (Danser) Byng & Christenh., comb. nov.** Basionym: *Cladomyza erecta* Danser, Nova Guinea ser. 2, 6: 275. 1955.

***Dendromyza gracilis* (Danser) Byng & Christenh., comb. nov.** Basionym: *Cladomyza gracilis* Danser,

*Nova Guinea* ser. 2, 6: 275. 1955.

**Dendromyza kaniensis** (Pilg.) Byng & Christenh., comb. nov. Basionym: *Henslowia kaniensis* Pilg., Bot. Jahrb. Syst. 59: 127. 1924.

**Dendromyza laevis** (Pilg.) Byng & Christenh., comb. nov. Basionym: *Henslowia laevis* Pilg., Bot. Jahrb. Syst. 59: 125. 1924.

**Dendromyza latifolia** (Danser) Byng & Christenh., comb. nov. Basionym: *Cladomyza latifolia* Danser, *Nova Guinea* ser. 2, 4: 141. 1940.

**Dendromyza microphylla** (Lauterb.) Byng & Christenh., comb. nov. Basionym: *Henslowia microphylla* Lauterb., *Nova Guinea* 8: 813. 1912.

**Dendromyza multinervis** (Danser) Byng & Christenh., comb. nov. Basionym: *Cladomyza multinervis* Danser, *Nova Guinea* ser. 2, 4: 139. 1940.

**Dendromyza nivalis** (Ridl.) Byng & Christenh., comb. nov. Basionym: *Henslowia nivalis* Ridl., Trans. Linn. Soc. London, Bot. 9: 146. 1916.

**Dendromyza robustior** (Danser) Byng & Christenh., comb. nov. Basionym: *Cladomyza robustior* Danser, *Nova Guinea* ser. 2, 4: 137. 1940.

**Dendromyza stellata** (Stauffer) Byng & Christenh., comb. nov. Basionym: *Cladomyza stellata* Stauffer, Mitt. Bot. Mus. Univ. Zurich 242: 62. 1969.

**Dendromyza trinervia** (Stauffer) Byng & Christenh., comb. nov. Basionym: *Cladomyza trinervia* Stauffer, Mitt. Bot. Mus. Univ. Zurich 242: 65. 1969.

**Dendromyza uncinata** (Danser) Byng & Christenh., comb. nov. Basionym: *Cladomyza uncinata* Danser, *Nova Guinea* ser. 2, 4: 139. 1940.

**Leptomeria rubescens** (Stauffer) Byng & Christenh., comb. nov. Basionym: *Spirogardnera rubescens* Stauffer, Mitt. Bot. Mus. Univ. Zurich 240: 307. 1968.

## 282. Plumbaginaceae. Reference: Lledó et al. (2005)

**Note:** *Muellerolimon* Lincz. was found to be embedded in *Goniolimon* Boiss. and is hereby transferred. *Plumbago* L. is expanded with *Dyerophytum* Kuntze.

**Goniolimon salicorniaceum** (F.Muell.) Christenh. & Byng, comb. nov. Basionym: *Statice salicorniacea* F.Muell., Fragm. 11: 7. 1878. (Figure 16G)

**Plumbago africana** (Lam.) Christenh. & Byng, comb. nov. Basionym: *Vogelia africana* Lam., Icon. Pl. 2: 147. 1792.

**Plumbago arabica** (Boiss.) Christenh. & Byng, comb. nov. Basionym: *Vogelia arabica* Boiss. in DC. Prodr. 12: 696. 1848.

**Plumbago dyerophyta** Christenh. & Byng, nom. nov. Replaced synonym: *Dyerophytum indicum* Kuntze, Revis. Gen. Pl. 2: 394. 1891, not: *Plumbago indica* L. Etymology: Named for the genus *Dyerophytum*, now

a synonym of *Plumbago*.

**Plumbago pendula** (Kuntze) Christenh. & Byng, comb. nov. Basionym: *Dyerophytum pendulum* Kuntze, Revis. Gen. Pl. 2: 394. 1891.

**314. Talinaceae.** References: Hershkovitz & Zimmer (1997), Applequist & Wallace (2001), Nyffeler (2007).

**Note:** *Talinella* Baill. is found to be inseparable from *Talinum* Adans., so the two genera are hereby merged.

**Talinum albiflorum** (Appleq.) Christenh. & Byng, comb. nov. Basionym: *Talinella albiflora* Appleq., Adansonia, sér. 3, 27: 52. 2005.

**Talinum ankaranense** (Appleq.) Christenh. & Byng, comb. nov. Basionym: *Talinella ankaranensis* Appleq., Adansonia, sér. 3, 27: 54. 2005.

**Talinum boivinianum** (Baill.) Christenh. & Byng, comb. nov. Basionym: *Talinella boiviniana* Baill., Bull. Mens. Soc. Linn. Paris 1: 569. 1886.

**Talinum bosseri** (Appleq.) Christenh. & Byng, comb. nov. Basionym: *Talinella bosseri* Appleq., Adansonia, sér. 3, 27: 58. 2005.

**Talinum dauphinense** (Scott-Elliott) Christenh. & Byng, comb. nov. Basionym: *Talinella dauphinensis* Scott-Elliott, J. Linn. Soc., Bot. 29: 4. 1891.

**Talinum grevei** (Danguy) Christenh. & Byng, comb. nov. Basionym: *Talinella grevei* Danguy, Notul. Syst. (Paris) 3: 159. 1915.

**Talinum humbertii** (Appleq.) Christenh. & Byng, comb. nov. Basionym: *Talinella humbertii* Appleq., Adansonia, sér. 3, 27: 68. 2005.

**Talinum latifolium** (Appleq.) Christenh. & Byng, comb. nov. Basionym: *Talinella latifolia* Appleq., Adansonia, sér. 3, 27: 70. 2005.

**Talinum microphyllum** (Eggli) Christenh. & Byng, comb. nov. Basionym: *Talinella microphylla* Eggli, Adansonia, sér. 3, 19: 56. 1997.

**Talinum pachypodium** (Eggli) Christenh. & Byng, comb. nov. Basionym: *Talinella pachypoda* Eggli, Adansonia, sér. 3, 19: 57. 1997.

**Talinum tsitondroinense** (Appleq.) Christenh. & Byng, comb. nov. Basionym: *Talinella tsitondroinensis* Appleq., Adansonia, sér. 3, 27: 75. 2005.

**Talinum xerophilum** (Appleq.) Christenh. & Byng, comb. nov. Basionym: *Talinella xerophila* Appleq., Adansonia, sér. 3, 27: 76. 2005.

## 332. Pentaphylacaceae. Reference: Luna & Ochoterena (2004).

**Note:** *Killipiodendron* Kobuski is here moved to *Freziera* Willd., where molecular data places it.

**Freziera colombiana** (Kobuski) Christenh. & Byng, comb. nov. Basionym: *Killipiodendron colombianum*

Kobuski, *J. Arnold Arbor.* 23: 231. 1942.

**348. Icacinaceae.** References: Manchester (1994), Stull (unpublished data).

**Note:** The replacement name *Pyrenacantha occidentalis* Byng & Utteridge for *Polycephalium capitatum* (Baill.) Keay is invalid, because an earlier homonym existed for a fossil taxon. A new name is here proposed. *Nothopodytes* Blume is embedded in *Mappia* Jacq. and is hereby transferred.

***Mappia amamiana* (Nagam. & Mak.Kato) Byng & Stull, comb. nov.** Basionym: *Nothopodytes amamianus* Nagam. & Mak.Kato, *Acta Phytotax. Geobot.* 55: 75. 2004.

***Mappia collina* (C.Y.Wu) Byng & Stull, comb. nov.** Basionym: *Nothopodytes collina* C.Y.Wu, *Fl. Yunnan.* 1: 169. 1977.

***Mappia nimmoniana* (J.Grah.) Byng & Stull, comb. nov.** Basionym: *Premna nimmoniana* J.Grah., *Cat. Pl. Bombay*: 155. 1839.

***Mappia obscura* (C.Y.Wu) Byng & Stull, comb. nov.** Basionym: *Nothopodytes obscura* C.Y.Wu, *Fl. Yunnan.* 1: 170. 1977.

***Mappia tomentosa* (C.Y.Wu) Byng & Stull, comb. nov.** Basionym: *Nothopodytes tomentosa* C.Y.Wu, *Fl. Yunnan.* 1: 169. 1977.

***Pyrenacantha manchesteriana* Byng & Christenh., nom. nov.** Basionym: *Chlamydocarya capitata* Baill., *Adansonia* n.s. 10: 277. 1872, not: *Pyrenacantha capitata* H.Perrier. Replaced synonym: *Pyrenacantha occidentalis* Byng & Utteridge, *Bot. J. Linn. Soc.* 176: 202. 2014, *nom. illeg.*, not: *P. occidentalis* Manchester (fossil). Etymology: Named after Steve Manchester a paleobotanist who has worked extensively on the fossils of Icacinaceae and whose fossil species necessitated this new name.

**354. Loganiaceae.** Reference: Gibbons et al. (2012).

**Note:** *Labordia* is embedded in *Geniostoma*. The species are hereby transferred.

***Geniostoma degeneri* (Sherff) Byng & Christenh., comb. nov.** Basionym: *Labordia degeneri* Sherff in Degener, *Fl. Hawaii.*: Fam. 302. 1938.

***Geniostoma hedyosmifolium* (Baill.) Byng & Christenh., comb. nov.** Basionym: *Labordia hedyosmifolia* Baill., *Bull. Mens. Soc. Linn. Paris* 1: 240. 1880.

***Geniostoma helleri* (Sherff) Byng & Christenh., comb. nov.** Basionym: *Labordia helleri* Sherff, *Amer. J. Bot.* 25: 581. 1938.

***Geniostoma hirtellum* (H.Mann) Byng & Christenh., comb. nov.** Basionym: *Labordia hirtella* H.Mann, *Proc. Amer. Acad. Arts & Sci.* 7: 196. 1867.

***Geniostoma hosakanum* (Sherff) Byng & Christenh.,**

**comb. & stat. nov.** Basionym: *Labordia hedyosmifolia* Baill. var. *hosakana* Sherff, *Amer. J. Bot.* 25: 584. 1938.

***Geniostoma hymenopodium* O.Deg. & Sheriff) Byng & Christenh., comb. nov.** Basionym: *Labordia hymenopoda* O.Deg. & Sheriff, *Amer. J. Bot.* 38: 60. 1951. Replaced synonym: *Labordia sessilis* A.Gray, *Proc. Amer. Acad. Arts & Sci.* 4: 323. 1859, not: *Geniostoma sessile* Kaneh.

***Geniostoma lorenceanum* (K.R.Wood, W.L.Wagner & T.Motley) Byng & Christenh., comb. nov.** Basionym: *Labordia loreneciana* K.R.Wood, W.L.Wagner & T.Motley, *Syst. Bot.* 32: 195. 2007.

***Geniostoma lydgatei* (C.N.Forbes) Byng & Christenh., comb. nov.** Basionym: *Labordia lydgatei* C.N.Forbes, *Occas. Pap. Bernice Pauahi Bishop Mus.* 6: 60. 1916, as 'lydgatei'.

***Geniostoma pumilum* (Hillebr.) Byng & Christenh., comb. & stat. nov.** Basionym: *Labordia fragaeoidea* Gaudich. var. *pumila* Hillebr., *Fl. Hawaiian Isl.*: 290. 1888.

***Geniostoma tinifolium* (A.Gray) Byng & Christenh., comb. nov.** Basionym: *Labordia tinifolia* A.Gray, *Proc. Amer. Acad. Arts. Sci.* 4: 322. 1859.

***Geniostoma tinifolium* (A.Gray) Byng & Christenh. var. *lanaiense* (Sherff) Byng & Christenh., comb. nov.** Basionym: *Labordia tinifolia* A.Gray var. *lanaiensis* Sherff, *Amer. J. Bot.* 25: 583. 1938.

***Geniostoma tinifolium* (A.Gray) Byng & Christenh. var. *wahiawaense* (H.St.John) Byng & Christenh., comb. nov.** Basionym: *Labordia tinifolia* A.Gray var. *wahiawaensis* H.St.John, *Bull. Torrey Bot. Club* 111: 481. 1984.

***Geniostoma trifolium* (Hillebr.) Byng & Christenh., comb. nov.** Basionym: *Labordia triflora* Hillebr., *Fl. Hawaiian Isl.*: 293. 1888.

***Geniostoma venosum* (Sherff) Byng & Christenh., comb. nov.** Basionym: *Labordia venosa* Sherff, *Amer. J. Bot.* 25: 579. 1938.

***Geniostoma waialealeae* (Wawra) Byng & Christenh., comb. nov.** Basionym: *Labordia waialealeae* Wawra, *Flora* 55: 516. 1872.

***Geniostoma waiolani* (Wawra) Byng & Christenh., comb. nov.** Basionym: *Labordia waiolani* Wawra, *Flora* 55: 516. 1872.

**376. Pedaliaceae.** Reference: Gormley et al. (2015).

**Note:** *Ceratotheca* Endl. and *Josephinia* Vent. are genetically and morphologically indistinct from *Sesamum* L. and the species are thus hereby transferred.

***Sesamum byngianum* Christenh., nom. nov.** Replaced synonym: *Josephinia africana* Vatke, *Linnæa* 43: 541. 1882, not: *Sesamum africanum* Tod. Etymology:

Named for James W. Byng, for his contributions to African botany.

**Sesamum celebicum** (Blume) Byng & Christenh., comb. nov. Basionym: *Josephinia celebica* Blume, *Bijdr. Fl. Ned. Ind.* 14: 779. 1826.

**Sesamum christenhuszianum** Byng, nom. nov. Replaced synonym: *Josephinia grandiflora* R.Br., *Prod. Fl. Nov. Holland.*: 520. 1810, not: *Sesamum grandiflorum* Schinz. Etymology: The species is named for Maarten J. M. Christenhusz, for his contributions to Australian botany.

**Sesamum eriocarpum** (Decne.) Byng & Christenh., comb. nov. Basionym: *Pretrea eriocarpa* Decne., *Duch. Rev. Bot.* 1: 517. 1846.

**Sesamum eugeniae** (F.Muell.) Byng & Christenh., comb. nov. Basionym: *Josephinia eugeniae* F.Muell., *Hooker's J. Bot. Kew Gard. Misc.* 9: 370, t. 11. 1857.

**Sesamum forbesii** (Decne.) Byng & Christenh., comb. nov. Basionym: *Pretrea forbesii* Decne., *Ann. Sci. Nat., Bot. sér. 5*, 3: 334. 1865.

**Sesamum imperatrice** (Vent.) Byng & Christenh., comb. nov. Basionym: *Josephinia imperatricis* Vent., *Jard. Malmaison* 2: t. 67. 1804.

**Sesamum integribracteatum** (Engl.) Byng & Christenh., comb. nov. Basionym: *Ceratotheca integribracteata* Engl., *Bot. Jahrb. Syst.* 19: 156. 1894.

**Sesamum papillosum** (W.Fitzg.) Byng & Christenh., comb. nov. Basionym: *Josephinia papillosa* W.Fitzg., *J. Proc. Roy. Soc. Western Australia* 3: 207. 1918.

**Sesamum reniforme** (Abels) Byng & Christenh., comb. nov. Basionym: *Ceratotheca reniformis* Abels, *Morphol., Geogr. Taxon., Dicerocaryum & Ceratotheca (Hamburg)*: 177. 1973.

**Sesamum saxicola** (E.A.Bruce) Byng & Christenh., comb. nov. Basionym: *Ceratotheca saxicola* E.A.Bruce, *Bothalia* 6: 233. 1951.

**Sesamum seneciooides** (Klotzsch) Byng & Christenh., comb. nov. Basionym: *Pretrea seneciooides* Klotzsch, *Naturw. Reise Mossambique [Peters]* 6(Bot., 1): 189. 1861.

**Sesamum sesamoides** (Endl.) Byng & Christenh., comb. nov. Basionym: *Ceratotheca sesamoides* Endl., *Linnaea* 7: 5. 1832.

**Sesamum trilobum** (Bernh.) Byng & Christenh., comb. nov. Basionym: *Sporledera triloba* Bernh., *Linnaea* 16: 42. 1842. (Figure 16F)

**Sesamum zanguebarium** (Lour.) Byng & Christenh., comb. nov. Basionym: *Martynia zanguebaria* Lour., *Fl. Cochinch.* 2: 386. 1790.

**382. Verbenaceae.** References: Yuan & Olmstead (2008), Marx *et al.* (2010).

**Note:** *Glandularia* J.F.Gmel. is paraphyletic with

several clades of this genus embedded in *Verbena* L. Morphologically the two genera are very similar, differing mainly in style length, and there is evidence of horizontal gene transfer between the 'genera'. We propose an expanded *Verbena* and transfer any remaining names. Additionally, *Xolocotzia* Miranda is placed in *Petrea* L. and *Baillonia* Bocq. is merged with *Citharexylum* B.Juss.

**Citharexylum amabile** (Bocq. ex Baill.) Christenh. & Byng, comb. nov. Basionym: *Baillonia amabilis* Bocq. ex Baill., *Adansonia* 2: 252. 1862.

**Petrea xolocotzia** Christenh. & Byng, nom. nov. Replaced synonym: *Xolocotzia asperifolia* Miranda, *Bol. Soc. Bot. México* 29: 40. 1965, not: *Petrea asperifolia* Brongn. ex Moldenke. Etymology: Named for the former genus *Xolocotzia*, now a synonym of *Petrea*.

**Verbena alejandrana** (B.L.Turner) Christenh. & Byng, comb. nov. Basionym: *Glandularia alejandrana* B.L.Turner, *Lundellia* 2: 57. 1999.

**Verbena angustilobata** (Moldenke) Christenh. & Byng, comb. nov. Basionym: *Verbena cabrerae* Moldenke var. *angustilobata* Moldenke, *Phytologia* 28: 195. 1974.

**Verbena brachyrhynchos** (G.L.Nesom & Vorobik) Christenh. & Byng, comb. nov. Basionym: *Glandularia brachyrhynchos* G.L.Nesom & Vorobik, *Sida* 13: 31. 1988.

**Verbena guaiensis** (P.Peralta & V.Thode) Christenh. & Byng, comb. nov. Basionym: *Glandularia guaiensis* P.Peralta & V.Thode, *Rodriguésia* 61: S30. 2010.

**Verbena malpaisana** (T.Van Devender & G.L.Nesom) Christenh. & Byng, comb. nov. Basionym: *Glandularia malpaisana* T.Van Devender & G.L.Nesom, *Phytoneuron* 2012-65: 1. 2012.

**Verbena turneri** (G.L.Nesom) Christenh. & Byng, comb. nov. Basionym: *Glandularia turneri* G.L.Nesom, *Phytologia* 72: 383. 1992.

#### 408. Adoxaceae. Reference: Liu *et al.* (2000).

**Note:** Based on molecular data *Sinodoxa* C.Y.Wu, Z.L.Wu & R.F.Huang and *Tetradoxa* C.Y.Wu form a clade with *Adoxa* L. and the three genera are morphologically very similar. The variability in the other genera in Adoxaceae (*Sambucus* L. and *Viburnum* L.) are far greater and merging these genera are in line with traditional generic circumscription in this family. *Tetradoxa* was already described as *Adoxa*, so only one new combination is needed.

**Adoxa corydalifolia** (C.Y.Wu, Z.L.Wu & R.F.Huang) Christenh. & Byng, comb. nov. Basionym: *Sinodoxa corydalifolia* C.Y.Wu, Z.L.Wu & R.F.Huang, *Acta*

*Phytotax. Sin.* 19: 208. 1981.

**409. Caprifoliaceae.** References: Bell & Donoghue (2005), Hidalgo et al. (2010),

**Note:** *Valeriana* L. is widely polyphyletic with *Belonanthus* Graebn., *Centranthus* Lam. & DC., *Fedia* Gaertn., *Phuodendron* (Graebn.) Dalla Torre & Harms, *Plectritis* (Lindl.) DC. and *Valerianella* Mill. embedded in it. Theoretically the *Valeriana celtica* L. clade can be segregated to maintain several of the genera, but as *Valeriana longiflora* Willk. is sister to the entire clade and not all species of *Valeriana* have yet been sequenced, it is likely that recognising these as separate genera defies the purpose and it will be difficult to find morphological characters that distinguish these new genera. Therefore we propose to treat *Valeriana* in the broad sense, a morphologically coherent group, and we hereby make the necessary combinations.

***Valeriana aegaea* Christenh. & Byng, nom. nov.**  
Replaced synonym: *Valerianella hirsutissima* Link, *Linnaea* 9: 580. 1835, not: *Valeriana hirsutissima* Killip. Etymology: Named for the Aegean region, where this species occurs.

***Valeriana algera* Christenh. & Byng, nom. nov.**  
Replaced synonym: *Algera eichleriana* Suksd., *Deutsche Bot. Monatsschr.* 15: 147. 1897, not: *Valeriana eichleriana* (Muell.) Graebn. Etymology: Named for the genus *Algera* Suksd., now a synonym of *Valeriana*.

***Valeriana amarella* (Lindh. ex Engelm.) Christenh. & Byng, comb. nov.** Basionym: *Fedia amarella* Lindh. ex Engelm., *Boston J. Nat. Hist.* 6: 217. 1857.

***Valeriana amazonum* (Fridl. & A.Raynal) Christenh. & Byng, comb. nov.** Basionym: *Centranthus amazonum* Fridl. & A.Raynal, *Adansonia* sér. 3, 20: 328. 1998.

***Valeriana aphanoptera* (A.Gray) Byng & Christenh., comb. nov.** Basionym: *Valerianella aphanoptera* A.Gray, *Proc. Amer. Acad. Arts & Sci.* 19: 83. 1883.

***Valeriana aretiastra* Christenh. & Byng, nom. nov.**  
Replaced synonym: *Aretiastrum maximum* Graebn., *Repert. Spec. Nov. Regni Veg.* 15: 323. 1918, not: *Valeriana maxima* Killip. Etymology: Named for *Aretiastrum*, now a synonym of *Valeriana*, from Greek ἀρετή, virtue.

***Valeriana arkansana* Christenh. & Byng, comb. nov.**  
Basionym: *Valerianella palmeri* Dyal, *Rhodora* 40: 201. 1938, not: *Valeriana palmeri* A.Gray ex S.Watson. Etymology: Named for the US state Arkansas, where the type of this species was collected.

***Valeriana atlantica* (I.Richardson) Christenh. & Byng, comb. nov.** Basionym: *Centranthus longiflorus* Steven subsp. *atlanticus* I.Richardson, *Bot. J. Linn.*

*Soc.* 71: 227. 1975.

***Valeriana xaurigerana* (Giraudias) Christenh. & Byng, comb. nov.** Basionym: *Centranthus xaurigeranus* Giraudias, *Bull. Soc. Études Sci. Angers* 19: 107. 1889.

***Valeriana battandieri* (Maire) Christenh. & Byng, comb. nov.** Basionym: *Centranthus battandieri* Maire, *Bull. Soc. Hist. Nat. Afrique N.* 17: 115. 1926.

***Valeriana belonantha* Christenh. & Byng, nom. nov.**

Replaced synonym: *Belonanthus angustifolius* Schmale, *Notizbl. Bot. Gart. Berlin-Dahlem* 13: 25. 1936, not: *Valeriana angustifolia* Mill. Etymology: Named for the genus *Belonanthus*, now a synonym of *Valeriana*, from βελόνη, needle, and ἄνθος, flower.

***Valeriana brachystemon* (Fisch. & C.A.Mey.) Byng & Christenh., comb. nov.** Basionym: *Plectritis brachystemon* Fisch. & C.A.Mey., *Index Semin.* (St. Petersburg) 2: 47. 1836.

***Valeriana cadevallii* (Sennen) Christenh. & Byng, nom. nov.**  
Basionym: *Centranthus cadevallii* Sennen, *Treb. Inst. Catalana Hist. Nat.* 83. 1917. Replaced synonym: *Centranthus macrosiphon* Boiss., *Diagn. Pl. Orient. ser. 1, 3: 57.* 1843, not: *Valeriana macrosiphon* E.Vilm.

***Valeriana calycina* (Maire) Christenh. & Byng, comb. nov.** Basionym: *Fedia calycina* Maire, *Bull. Soc. Hist. Nat. Afrique N.* 22: 291. 1931.

***Valeriana carinata* (Loisel.) Christenh. & Byng, comb. nov.** Basionym: *Valerianella carinata* Loisel., *Not. Fl. France*: 149. 1810.

***Valeriana caucasiana* (Boiss.) Christenh. & Byng, comb. nov.** Basionym: *Betckea caucasiana* Boiss., *Fl. Orient.* 3: 94. 1875.

***Valeriana chenopodiifolia* (Pursh) Christenh. & Byng, comb. nov.** Basionym: *Fedia chenopodiifolia* Pursh, *Fl. Amer. Sept.* 2: 727. 1814.

***Valeriana ciliosa* (Greene) Byng & Christenh., comb. nov.** Basionym: *Valerianella ciliosa* Greene, *Proc. Acad. Nat. Sci. Philadelphia* 1895: 548. 1896.

***Valeriana congesta* (Lindl.) Byng & Christenh., comb. nov.** Basionym: *Valerianella congesta* Lindl., *Bot. Reg.* 13: t. 1094. 1827.

***Valeriana coronata* (L.) Christenh. & Byng, comb. nov.**  
Basionym: *Valeriana locusta* L. var. *coronata* L., *Sp. Pl.* 1: 34. 1753.

***Valeriana davyana* (Jeps.) Christenh. & Byng, comb. nov.**  
Basionym: *Plectritis davyana* Jeps., *Fl. W. Calif.* 475. 1901.

***Valeriana dorothaea* (Weberl.) Christenh. & Byng, comb. nov.** Basionym: *Phyllactis dorothaea* Weberl., *Ber. Deutsch. Bot. Ges.* 94: 306. 1981.

***Valeriana edwardsensis* Christenh. & Byng, nom. nov.**  
Replaced synonym: *Valerianella texana* Dyal, *Rhodora* 40: 198. 1938, not: *Valeriana texana*

Steyerm. Etymology: Named for the Edwards Plateau in Texas, where this species occurs.

**Valeriana erikae (Graebn.) Christenh. & Byng, comb. nov.** Basionym: *Stangea erikae* Graebn., Bot. Jahrb. Syst. 37: 450. 1906.

**Valeriana eriocarpa (Desv.) Christenh. & Byng, comb. nov.** Basionym: *Valerianella eriocarpa* Desv., J. Bot. (Paris) 2: 314. 1809.

**Valeriana erotica Christenh. & Byng, nom. nov.** Replaced synonym: *Centranthus longiflorus* Steven, Observ. Pl. Ross. 2: 76. 1824 [1828], not: *Valeriana longiflora* Willk. Etymology: Named for Eros, Greek god of desire and erotic love.

**Valeriana extincta Christenh. & Byng, nom. nov.** Replaced synonym: *Valerianella affinis* Balf., Proc. Roy. Soc. Edinb. 11: 837. 1882, not: *Valeriana affinis* Opiz. Etymology: This species is now extinct, but used to occur only on Socotra Island.

**Valeriana florifera (Shinners) Christenh. & Byng, comb. nov.** Basionym: *Valerianella florifera* Shinners, Field & Lab. 21(2): 93. 1953.

**Valeriana gibbosa (Suksd.) Christenh. & Byng, comb. nov.** Basionym: *Plectritis gibbosa* Suksd., Werdenda 1: 43. 1927.

**Valeriana graciliflora (Fisch. & C.A.Mey.) Byng & Christenh., comb. nov.** Basionym: *Fedia graciliflora* Fisch. & C.A.Mey., Index Semin. (St. Petersburg) 6: 59. 1840.

**Valeriana heterocarpa (Pomel) Christenh. & Byng, comb. nov.** Basionym: *Fedia heterocarpa* Pomel, Nouv. Mat. Fl. Atl. 1: 71. 1874.

**Valeriana hidalgoana Christenh. & Byng, nom. nov.** Replaced synonym: *Aligera californica* Suksd., Werdenda 1: 44. 1927, not: *Valeriana californica* A.Heller. Etymology: Named for Oriane Hidalgo, for her contribution to the understanding of relationships in *Valeriana*.

**Valeriana hirsuta (Emb. & Maire) Christenh. & Byng, comb. nov.** Basionym: *Fedia cornucopiae* (L.) Gaertn. var. *hirsuta* Emb. & Maire, Mém. Soc. Sci. Nat. Maroc 21–22: 35. 1930.

**Valeriana ibika Christenh. & Byng, nom. nov.** Replaced synonym: *Fedia puberula* Bertol. ex Guss. Pl. Rar. Sic.: 15. 1826, not: *Valeriana puberula* Piper. Etymology: From Greek ηβικός, pubic.

**Valeriana insignis (Suksd.) Christenh. & Byng, comb. nov.** Basionym: *Aligera insignis* Suksd., Deutsche Bot. Monatsschr. 15: 147. 1897.

**Valeriana xinterjecta Christenh. & Byng, nom. nov.** Replaced synonym: *Centranthus × intermedius* (Schltrd.) Rapin, Guide Bot. Vand ed. 2: 277. 1862, not: *Valeriana intermedia* Vahl. Etymology: Latin for 'in between'.

**Valeriana jepsonii (Suksd.) Christenh. & Byng, comb.**

**nov.** Basionym: *Aligera jepsonii* Suksd., Erythea 6: 24. 1898.

**Valeriana juncea (Boiss. & Heldr.) Christenh. & Byng, comb. nov.** Basionym: *Centranthus junceus* Boiss. & Heldr., Diagn. Pl. Orient. 2: 73. 1849.

**Valeriana kellereri (Stoj., Stef. & T.Georgiev) Christenh. & Byng, comb. nov.** Basionym: *Centranthus longiflorus* var. *kellereri* Stoj., Stef. & T.Georgiev, Ber. Bulg. Bot. Ges. 11: 37. 1928.

**Valeriana kotschyti (Boiss.) Christenh. & Byng, comb. nov.** Basionym: *Valerianella kotschyti* Boiss., Diagn. Pl. Orient. ser. 1, 3: 60. 1843

**Valeriana lanata Christenh. & Byng, nom. nov.** Replaced synonym: *Fedia lasiocarpa* Steven, Mém. Soc. Imp. Naturalistes Moscou 5: 50. 1817, not *Valeriana lasiocarpa* Griseb. Etymology: From Latin *lanatus*, woolly, for the woolly fruit.

**Valeriana langei Christenh. & Byng, nom. nov.** Replaced synonym: *Valerianella divaricata* Lange, Vidensk. Meddel. Naturhist. Foren. Kjøbenhavn ser. 2, 1861 (vol. 23): 61. 1861, not: *Valeriana divaricata* Hinter. Etymology: Named for Danish botanist Johan M.C. Lange, who discovered and described this species from Grenada.

**Valeriana lecoquii (Jord.) Christenh. & Byng, comb. nov.** Basionym: *Centranthus lecoquii* Jord., Pugill. Pl. Nov.: 76. 1852.

**Valeriana macrocera (Torr. & A.Gray) Byng & Christenh., comb. nov.** Basionym: *Plectritis macrocera* Torr. & A.Gray, Fl. N. Amer. 2: 50. 1841.

**Valeriana macroptera (Suksd.) Byng & Christenh., comb. nov.** Basionym: *Aligera macroptera* Suksd., Deutsche Bot. Monatsschr. 15: 146. 1897.

**Valeriana maroccana (Rouy) Christenh. & Byng, comb. nov.** Basionym: *Centranthus maroccanus* Rouy, Fl. France [Rouy & Foucaud] 8: 80. 1903.

**Valeriana martini (Losco) Christenh. & Byng, comb. nov.** Basionym: *Valerianella martini* Losco, Trat. Pl. Arag. 1: 23. 1876.

**Valeriana matheziana Christenh. & Byng, nom. nov.** Replaced synonym: *Fedia longiflora* Torr. & A.Gray., Fl. N. Amer. 2: 51. 1841, not: *Valeriana longiflora* Willk. Etymology: Named for Joël Mathez, for his contribution to the knowledge of *Fedia*, now a synonym of *Valeriana*.

**Valeriana minor (Hook.) Byng & Christenh., comb. nov.** Basionym: *Plectritis congesta* (Lindl.) DC. var. *minor* Hook., Fl. Bor.-Amer. 1: 291. 1833.

**Valeriana narda Christenh. & Byng, nom. nov.** Replaced synonym: *Valerianella intermedia* Dyal, Rhodora 40: 202. 1938, not: *Valeriana intermedia* Vahl. Etymology: From Greek, νάρδος, a spikenard.

**Valeriana nevadensis (Boiss.) Christenh. & Byng, comb. nov.** Basionym: *Centranthus nevadensis*

- Boiss., *Diagn. Pl. Orient. ser. 2*, 2: 120. 1856.
- Valeriana nuttallii* (Walp.) Christenh. & Byng, comb. nov.** Basionym: *Valerianella nuttallii* Walp., *Repert. Bot. Syst.* 2: 527. 1843.
- Valeriana obtusiloba* (Boiss.) Christenh. & Byng, comb. nov.** Basionym: *Valerianella obtusiloba* Boiss., *Diagn. Pl. Orient. ser. 1*, 3: 59. 1843.
- Valeriana oxyrhyncha* (Fisch. & C.A.Mey.) Christenh. & Byng, comb. nov.** Basionym: *Valerianella oxyrhyncha* Fisch. & C.A.Mey., *Index Semin. (St.Petersburg)* 4: 51. 1837.
- Valeriana ozarkana* (Dyal) Christenh. & Byng, comb. nov.** Basionym: *Valerianella ozarkana* Dyal, *Rhodora* 40: 208. 1938.
- Valeriana pallescens* (L.) Byng & Christenh., comb. nov.** Basionym: *Fedia cornucopiae* (L.) Gaertn. var. *pallescens* Maire, *Bull. Soc. Hist. Nat. Afrique N.* 16: 34. 1925.
- Valeriana paulae* (Graebn.) Christenh. & Byng, comb. nov.** Basionym: *Stangea paulae* Graebn., *Bot. Jahrb. Syst.* 37: 450. 1906.
- Valeriana plagiostephana* (Fisch. & C.A.Mey.) Christenh. & Byng, comb. nov.** Basionym: *Valerianella plagiostephana* Fisch. & C.A. Mey., *Index Semin. (St. Petersburg)* 2: 52. 1835.
- Valeriana pleurota* Christenh. & Byng, nom. nov.** Replaced synonym: *Fedia costata* Steven, *Mém. Soc. Imp. Naturalistes Moscou* 5: 344. 1817, not: *Valeriana costata* Schmale. Etymology: From Greek πλευρωτός, ribbed.
- Valeriana pontica* (Velen.) Christenh. & Byng, comb. nov.** Basionym: *Valerianella pontica* Velen., *Sitzungsber. Königl. Böh. Ges. Wiss.* 37: 34. 1893 (1894).
- Valeriana pulvinata* (Rauh & Willer) Christenh. & Byng, comb. nov.** Basionym: *Phyllactis pulvinata* Rauh & Willer, *Bot. Jahrb. Syst.* 82: 268. 1963.
- Valeriana rimosa* (Bastard) Christenh. & Byng, comb. nov.** Basionym: *Valerianella rimosa* Bastard, *J. Bot. (Paris)* 3: 20. 1814.
- Valeriana rubens* (Suksd.) Christenh. & Byng, comb. nov.** Basionym: *Aligera rubens* Suksd., *Deutsche Bot. Monatsschr.* 15: 146. 1897.
- Valeriana salata* Christenh. & Byng, nom. nov.** Replaced synonym: *Valerianella microcarpa* Loisel., *Not. Fl. France*: 151. 1810, not: *Valeriana microcarpa* Sumnev. Etymology: From Greek σαλάτα, salad, because the leaves can be eaten as salad.
- Valeriana sclerocarpa* (Fisch. & C.A.Mey.) Christenh. & Byng, comb. nov.** Basionym: *Valerianella sclerocarpa* Fisch. & C.A.Mey., *Index Semin. (St.Petersburg)* 2: 53. 1835.
- Valeriana sibthorpii* (Heldr. & Sartori ex Boiss.) Christenh. & Byng, comb. nov.** Basionym:
- Centranthus sibthorpii* Heldr. & Sartori ex Boiss., *Diagn. Pl. Orient. ser. 2*, 2: 119. 1856.
- Valeriana sieberi* (Heldr.) Christenh. & Byng, comb. nov.** Basionym: *Centranthus sieberi* Heldr., *Verh. K.K. Zool.-Bot. Ges. Wien* 40: 295. 1890.
- Valeriana stenocarpa* (Krok) Christenh. & Byng, comb. nov.** Basionym: *Valerianella stenocarpa* Krok, *Kongl. Vetensk. Acad. Nya Handl.* 5(1): 64. 1864.
- Valeriana sulcata* (Pomel) Christenh. & Byng, comb. nov.** Basionym: *Fedia sulcata* Pomel, *Nouv. Mat. Fl. Atl.* 1: 72. 1874.
- Valeriana szovitsiana* (Fisch. & C.A.Mey.) Christenh. & Byng, comb. nov.** Basionym: *Valerianella szovitsiana* Fisch. & C.A.Mey., *Index Semin. (St. Petersburg)* 3: 48. 1836.
- Valeriana triplaris* (Boiss. & Buhse) Christenh. & Byng, comb. nov.** Basionym: *Valerianella triplaris* Boiss. & Buhse, *Nouv. Mém. Soc. Imp. Naturalistes Moscou* 12: 111. 1860.
- Valeriana tuberculata* (Boiss.) Christenh. & Byng, comb. nov.** Basionym: *Valerianella tuberculata* Boiss., *Diagn. Pl. Orient. ser. 1*, 3: 59. 1843.
- Valeriana turgida* (Steven) Christenh. & Byng, comb. nov.** Basionym: *Fedia turgida* Steven, *Mém. Soc. Imp. Naturalistes Moscou* 5: 345. 1817.
- Valeriana umbilicata* (Sull.) Christenh. & Byng, comb. nov.** Basionym: *Fedia umbilicata* Sull., *Amer. J. Sci. Arts* 42: 50. 1842.
- Valeriana valeria* Byng & Christenh., nom. nov.** Basionym: *Valerianella anomala* A.Gray, *Proc. Amer. Acad. Arts & Sci.* 19: 83. 1883, not: *Valeriana anomala* Eastw. Etymology: Derived from Latin *valere*, to force or to be healthy or strong.
- Valeriana valerianella* Christenh. & Byng, nom. nov.** Replaced synonym: *Valeriana locusta* L. var. *radiata* L., *Sp. Pl.* 1: 34. 1753, not: *Valeriana radiata* Willd. Etymology: Named for the former genus *Valerianella*, meaning a small *Valeriana*.
- Valeriana wandaе* (Graebn. & Tessend.) Christenh. & Byng, comb. nov.** Basionym: *Stangea wandaе* Graebn. & Tessend., *Bot. Jahrb. Syst.* 37: 450. 1906.
- Valeriana woodsiana* (Torr. & A.Gray) Christenh. & Byng, comb. nov.** Basionym: *Fedia woodsiana* Torr. & A.Gray, *Fl. N. Amer.* 2: 52. 1841.

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This volume includes the first nomenclatural changes needed to update the classification of vascular plant families and genera following the forthcoming Global List of Vascular Plants (GLOVAP). We provide two new genera, four new species, 415 new names and 3286 new combinations. GLOVAP version 1 will adopt these new changes and hence make this one of the largest taxonomic undertakings in botany of recent times.

