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PROPOSALS TO REVISE ICBN

THIRTY-THREE PROPOSALS (59-79) TO CLARIFY THE CODE

P. V. Heath[1]

The thirty-three proposals presented below are intended to clarify the existing Code, to aid typification, to stabilize orthography, and to refine and extend the new nothonomenclatural regulations. These proposals are *not* a package, and are mostly not interdependent. At the suggestion of the Nomenclature Editor the proposals have been segregated into two series: Proposals to Amend the Code (to alter text) and Suggestions to the Editorial Committee (not to alter text but to add or delete examples).

Prop. (59). Add a new example to Art. 4 as follows: "The rank of *phylum* should not be used."

Comment: The use of the rank of phylum as a supplementary rank would be likely to cause confusion.

Prop. (60). Add a new paragraph to Rec. 10A as follows: "When the type of the name of a genus (or a subdivision of a genus) is referred to by the name of a species, that name should be the name adopted as correct by the author of the name of the genus (or the subdivision of a genus), not its basionym, nor a synonym.

"Ex. The type of *Cereus* subg. *Hylocereus* A. Berg. should be referred to as *Cereus triangularis* (L.) Haw., and the type of *Hylocereus* (A. Berg.) Br. & R. should be referred to as *Hylocereus triangularis* (L.) Br. & R."

Comment: When Britton and Rose published *Hylocereus* (Contr. U.S. Nat. Herb. 12: 428. 1909) they stated that the type was *Cereus triangularis* (L.) Haw. Subsequently (for example, *in* The Cactaceae, 2nd ed., 2: 183. 1937) they referred to the type as *Cactus triangularis* L. Standardization is clearly desirable, and this proposal merely codifies existing practice, as exemplified, for example, in Appendix III of the Code.

Prop. (61). Insert into Art. 10.2 the following: "The lectotype may not be the type of an excluded species name, nor may it be the type of a species name included only as a synonym."

Also, add the following example to Art. 10.2: "*Echinocactus scheeri* SD. is available for selection as the type of the name *E.* subg. *Ancistrocactus* K. Sch., because this species name was included in that subgenus by Schumann. *Echinocactus megarhizus* Rose is not available for selection, because it was unknown to Schumann. *Echinocactus brevihamatus* Eng. is also not available because it was included by Schumann only as a synonym of E. *scheeri* SD."

Comment: The present wording of the Code does not seem to explicitly exclude from consideration names included only as synonyms, but it should clearly do so. It is established practice to treat originally monotypic genera as automatically typified by the type of the species name adopted by the author of the genus for the sole included species. But if the types of all species names listed as synonyms must be considered, then lectotypification would be necessary. The proposal is intended to aid lectotypification by reducing the number of species names which must be considered, and by making lectotypification of originally monotypic genera unnecessary. In the case of the cited example, acceptance or rejection of the proposal will determine the type of both *Echinocactus* subg. *Ancistrocactus* K. Sch. and of *Ancistrocactus* (K. Sch.) Br. & R. If the proposal is accepted, then the type of both will be the type of *E. scheeri* SD. If the proposal is rejected, then the type of *E.* subg. *Ancistrocactus* K. Sch. will

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be the type of *E. brevihamatus* Eng., the lectotype selected by Taylor (Cact. Succ. J. G. B. 41(4): 90, 1979), which will also be the type of *Ancistrocactus* (K. Sch.) Br. & R., regardless of Taylor's statement to the contrary. Britton and Rose actually nominated *E. megarhizus* Rose as the type of *Ancistrocactus* (K. Sch.) Br. & R., but this is clearly impossible.

Prop. (62). Add a new paragraph after Art. 10.2 as follows: "If the included species are designated by polynomials, then the type of the genus (or subdivision of a genus) should be referred to by citing the polynomial of which it is type, and *not* by citing a synonymous binary name."

"Ex. 3. The type of *Cereus* Mill. should be referred to as *Cereus erectus altissimus Syranamensis* Herm., and the type of *Opuntia* Mill. should be referred to as *Opuntia vulgo herbariorum* J. Bauh."

Comment: The type of *Cereus* Mill., for example, is usually referred to as *C. hexagonus* (L.) Mill., but Miller did not use binary names in the work in which these generic names were first validly published. The polynomials quoted are new lectotypes. In both cases they are the first species listed by Miller, but they are *not* selected for that reason. Miller states that *Cereus erectus altissimus Syranamensis* "is the hardiest, as also the most common in *England* of any of these Sorts", and the type of this polynomial is therefore nominated as lectotype in accordance with T.4(d). The type of *Opuntia vulgo herbariorum* is likewise selected in accordance with T.4(d).

Prop. (63). Add a new paragraph at end of Art. 10 as follows: "The type of the name of a genus (or a subdivison of a genus) may not be a hybrid (unless Art. H.3, Note 1 applies)."

Comment: This proposal is intended to eliminate the following paradox from the Code: If the type of a generic name is an intersectional hybrid, then the epithet of the nothosection to which it belongs must repeat the name of the genus (Art. 22.1), *and* must be a condensed formula combining parts of the epithets of the parental sections (Art. H.7). While other solutions to this problem are possible, it is surely in any case inappropriate for the type of a generic name to be a hybrid, although determining whether the type is or is not a hybrid might cause difficulties in some cases.

Prop. (64). If Prop. (63) is accepted, add the following example to Art. 10: "The first choice of lectotype for the genus *Rosa* L. was *R. centifolia* L. (Britton and Brown, Ill. Fl. N. U.S. ed. 2. 1913), but this selection is overruled because *R. centifolia* L. is a hybrid and hence the next oldest valid choice of lectotype must be taken up."

Comment: This is the case that prompted Prop. (63). Under the present Code the type is *R.* ×*centifolia* L. According to Rowley (Taxon 25: 181. 1976) this choice is "totally unsuitable", and the compilers of the 8th edition of W. J. Bean's Hardy Trees and Shrubs (4: 44. 1980) state that "no worse choice could have been made." The type clone of *Rosa* ×*centifolia* is almost completely barren due to the doubleness of its flowers, and therefore could not possibly survive outside of cultivation. It is, perhaps, ultimately derived from both *R.* ×*belgica* Mill. (syn. *R.* ×*damascena* Mill. non Herrm.; ? = *R. gallica* L. × *R. phoenicea* Boiss.) and *R.* ×*calendarum* Münch. ex Borkh. (syn. *R.* ×*bifera* Poir.; ? = *R. gallica* L. × *R. moschata* Herrm.).

It is almost certainly descended from at least two sections, namely *R.* sect. *Gallicae* DC. ex Ser. and *R.* sect. *Systylae* DC., and according to Hurst (J. Royal Hort. Soc. 66: 81. 1941) from *R.* sect. *Caninae* DC. ex Ser. also. Some authors include *R.* ×*centifolia* in *R.* sect. *Gallicae,* and treat that section as *R.* sect. *Rosa.* But if *R.* ×*centifolia* is an intersectional hybrid, then it cannot be placed in *R.* sect. *Gallicae.* So, what *is* the name of the nothosection that contains *R.* ×*centifolia*?, does Art. 22.1 apply?, or does Art. H.7?

Two further candidates have been nominated as lectotype, namely *R. cinnamomea* L. and *R. canina* L., and while arguments for and against each could be made, either would be an excellent lectotype compared with *R.* ×*centifolia. Rosa cinnamomea* is the second oldest choice, and has been taken up by Rowley. It was selected by Britton and Wilson (Bot. Porto Rico and Virgin Islands, Sci. Surv. Porto Rico 5–6. 1923–1926), but it is the first named species, and therefore this designation "may" be superseded under Art. 8.1. The third oldest selection is *R. canina* by Rehder (Bibl. Cult. Trees Shrubs 296. 1949). *Rosa canina* is another hybrid, but it is an entirely wild pentaploid crypthybrid of ancient and indeterminable origin which is always treated as a species, and is therefore proposed as a further example under Art. H.3, Note 1 (see Prop. (74) below). The three suggested lectotypes are all undoubtedly congeneric, but they belong to different (notho)sections.

Prop. (65). Add the following example to Art. 63.3: "Tribe Cereastreae SD. (Cact. Hort. Dyck. anno 1844, p. 23. 1845) is corrected to Cereeae with the rank and author citation unchanged."

Comment: The three genera included by Salm-Dyck in his Cereastreae in 1845 were *Pilocereus* Lem., *Echinopsis* Zucc. and *Cereus* Mill., and the name Cereastreae is therefore clearly based on *Cereus*. All of Salm-Dyck's other tribes of Cactaceae have correct terminations (Melocacteae SD., Peirescieae SD., etc.) and it is not clear why Salm-Dyck used the termination -astreae for this tribe. Perhaps he wished to avoid the double 'e' of Cereeae, and he may have been influenced by the use of *Cereus* § *Cereastri* for the typical section of *Cereus* by de Candolle and by Pfeiffer.

Prop. (66). Add the following example to Art. 32.1(c): "*Cereus smithianus* was published by Sweet (Hort. Brit. 2nd ed., 237. 1830) and was briefly described with abbreviations and is not a nomen nudum."

Comment: Certain authors do not seem to appreciate that a name cannot be rejected as a nomen nudum unless the protologue lacks a description or diagnosis. Thus both Rowley (Epiphytes 8(29): 17. 1984) and Taylor (Epiphytes 8(30): 34. 1984) have claimed that *Cereus smithianus* Sweet (the basionym of ×*Aporoheliocereus smithianus* (Sweet) Heath) is a nomen nudum. The following appears in the protologue with reorganization and expansion of the abbreviations: "a dry greenhouse suffruticose hybrid with scarlet flowers from June to September, introduced in 1824." It is true that the description is poor but the Code does not discriminate against poorly described names (sometimes referred to as "nomina subnuda").

Prop. (67). Add the following to the existing Rec. 46A.5: "SD. for Joseph, Fürst und Altgraf zu Salm-Reifferscheidt-Dyck."

Comment: The abbreviation SD. has been almost universally adopted.

Prop. (68). Add the following to the existing Rec. 46A.5: "Br. & R. for N. L. Britton and J. N. Rose."

Comment: Britton and Rose established about 80 genera of Cactaceae (and innumerable species); the abbreviation Br. & R. is standard.

Prop. (69). Add the following note and examples to Art. 69: "Note 1. The mere statement (or proposal) by an individual botanist that a particular name is a 'nomen rejiciendum', 'nomen ambiguum', 'nomen confusum' or 'nomen dubium' does not in any way affect the validity of that name and its continued use when it is the earliest legitimate name applicable remains obligatory under Art. 11.

"Hunt's statement (Cact. Succ. J. G. B. 43(2–3): 47–48. 1981) that 26 *Mammillaria* species names (*M. acanthoplegma* Lehm., *M. ancistroides* Lehm., etc.) are 'nomina dubia' does not in any way affect their validity, and these names remain available for use.

"Klástersky's citing of *R. eglanteria* L. and *R. spinosissima* L. as 'nom. ambig.' (in Tutin et al., Fl. Europ. 2: 27 & 31. 1968) does not affect in any way their validity, and they remain the correct names for *R. rubiginosa* L. and *R. pimpinellifolia* L. respectively, when they are considered to be conspecific with those roses.

"Hunt's assertion (Cact. Succ. J. G. B. 39(4): 98. 1977) that *Mammillaria elegans* DC. is a 'nomen confusum' has no effect on the validity of *M. elegans* DC., nor on the validity of *M.* ser. *Elegantes* K. Sch., and these remain the correct names for the taxa referred to by Hunt as M. *haageana* Pfeiff. and *M.* ser. *Supertextae* Hunt, unless it can be demonstrated that these later taxa do not include the type of *M. elegans.*

"Taylor's comments (Cact. Succ. J. G. B. 41(4): 92. 1979) that "Therefore I propose that *Ferocactus acanthodes* (Lem.) Br. & R. be placed on the list of *nomina rejicienda,* as provided for under Art. 69" is of no consequence whatsoever, as Taylor has not presented this proposal to the General Committee, nor has he compiled "a detailed statement of the cases both for and against its rejection." Therefore *F. acanthodes* remains available for use, and has priority over *F. cylindraceus* (Engelm.) Orcutt."

Comment: There is little point in Principle IV, Art. 11, Art. 69, or the Guide for the Determination of Types if such unilateral rejections are permissible.

Prop. (70). Amend the second word of Art. 73.1 Ex. 3 to "errors" and add the following: "The name *Huernia* R. Br. commemorates J. van Heurn (J. Heurnius) and must therefore be corrected to *Heurnia* R. Br. Also, *Huerniopsis* N. E. Br., ×*Huerniorbia* Rowl. and ×*Huernivalia* Bruyns must be similarly corrected."

Comment: This proposal is prompted by the truly remarkable statement by G. D. Rowley (Name that Succulent. 24. 1980) which reads as follows: "But the generic name *Heurnia* (sic), commemorating Justus Huernius (sic) for evermore commemorates also Robert Brown's bad spelling. Only if the author himself subsequently calls attention to an error of this sort are we free to accept the change." But the present Code does not incorporate the wording reported by Rowley, and if *Huernia* isn't an orthographic error under Art. 73.1, what is? The proposed example is merely intended to illustrate the sort of corrections that the *present* wording of Art. 73.1 dictates.

Prop. (71). Insert the following new note and example after Art. 73.1, Ex. 3: "A name or epithet should not be corrected to conform with an unproven etymology.

"Ex. *Cereus jamacaru* DC. should not be corrected to *Cereus mandacaru* DC., even though *jamacaru* is believed to be a corruption of the vernacular name 'Mandacaru'."

Comment: The origin of many names and epithets is obscure, and it would be unwise to attempt to correct them on the basis of speculative etymologies.

Prop. (72). Add the following new Note and Example to Art. 73: "*Note 2.* The unnecessary replacement of *w* by *v*, or of *y* by *j* does not by itself constitute an intentional latinization under Art. 73.7, and is therefore an orthographic error that must be corrected.

"*Ex. 5.* Thus *Mammillaria voburnensis* Scheer must be corrected to *Mammillaria woburnensis* Scheer, because the epithet refers to Woburn Abbey, where the plant was first cultivated."

Comment: As the letters *w* and *y* are acceptable in botanical Latin, it follows that authors who have replaced them by *v* or *j* have done so erroneously, and therefore such substitutions should be corrected. In the example cited, the error is particularly blatant, and has frequently been commented upon. Thus, N. L. Britton and J. N. Rose regarded *woburnensis* as correct, and apparently believed *voburnensis* to be a printing error, as they stated "The name was originally printed by Sheer as *Mammillaria voburnensis*" (The Cactaceae, vol. 3, p. 100, 2nd ed. 1937). Similarly, R. T. Craig (The Mammillaria Handbook, p. 49, 1945) adopted *Mammillaria woburnensis* and suggested that "The spelling of *M. voburnensis* by Scheer might very probably have been a typographic error". On the other hand, R. Mottram (The Mammillaria Index, p. 100, 1980) merely states "woburnensis Alternative incorrect spelling of voburnensis", and J. Pilbeam (Mammillaria—A Collector's Guide, p. 138, 1981) comments: "The specific name alludes to the gardens at Woburn, whence Kew received and grew the originally described plant. The spelling 'v', rather than the common 'w' at the beginning is correct and follows the original, but is confusing since purist Latin scholars will pronounce the 'v' as though it were a 'w', thus endorsing the misconceived 'w'."

I do not believe that 'voburnensis' was a typographical error, nor do I accept that it constitutes a deliberate Latinization (as has been suggested by the Nomenclature Editor in litt.); it is a clear example of an orthographic error, and must be corrected under Art. 73.1. The orthographically correct botanical adjective pertaining to Woburn (which, incidentally, is pronounced Woobun) is firmly established by the following five publications by Woburn Abbey gardeners: Hortus Gramineus Woburnensis (Sinclair, 1816), Hortus Ericaeus Woburnensis (Sinclair, 1825), Salictum Woburnense (Forbes, 1829), Hortus Woburnensis (Forbes, 1833), and Pinetum Woburnense (Forbes, 1839).

Prop. (73). Replace Art. 73.7 with the following: "When a name or epithet is determined by the General Committee to be an intentional Latinization, then it may not be corrected. Such names and epithets are placed in Appendix V."

Establish an Appendix V, and list the following: *Clutia* L., *Echeveria* DC., *Gleditsia* L., *Rajania* L., *Sarracenia* L., *Satureja* L., *Tabernaemontana* L., *Valantia* L., *Scirpus tabernaemontani* Gmelin, and any other names which the General Committee may see fit to add.

Comment: The present Art. 73.7 is unsatisfactory as it does not explain how intentional Latinizations can be distinguished from orthographic errors. This proposal provides a permanent solution to the

problem. If this proposal is accepted but Prop. (72) is rejected, *Mammillaria voburnensis* Scheer should be included in the new Appendix V.

Prop. (74). Add the following to Art. H.3, Note 1, Ex. 3: "Crypt-hybrids, that is polyploids believed to be of ancient hybrid origin, such as *Rosa canina* L., should be treated as species."

Comment: This addition merely states established practice.

Prop. (75). Add a new Article H.5bis as follows: "The name of a nothotribe is a condensed formula formed by adding the termination *-eae* to the stem of the nothogeneric name, which is itself a condensed formula of the generic names on which the parental tribe names are based. If there is no known hybrid between the genera on which the tribe names are based, then a nothogeneric name must nevertheless be formed. This nothogeneric name does not become valid until the hybrid is found or produced, but the nothotribe name derived from it is valid if any hybrid between the tribes exist.

"The names of nothofamilies, nothosubfamilies, and nothosubtribes are formed in the same manner as those of nothotribes, but have the terminations *-aceae, -oideae,* and *-inae* respectively."

Comment: Hybrids between families, subfamilies, tribes, and subtribes exist, therefore the Code should provide a procedure for naming them.

Prop. (76). Delete the following phrase from Art. H.6.3: "the name of a collector, grower, or student of the group" and insert instead "the name of a person."

Comment: The present wording is unenforceable. Are nothogeneric names not commemorating a collector, grower or student to be rejected as invalid? If so, then the Code must define 'collector', 'grower', and 'student' and 'the group'. If such names are *not* invalid, then what *is* the point of the phrase? At most it can only be a recommendation.

Prop. (77). In Art. H.6, Exs. 6 and 7 replace the abbreviation "hort." each time it occurs with the name of the author of the nothogeneric name. Thus, amend "× *Potinara* hort." to "× *Potinara* Charlesworth & Co.," "× *Sophrolaeliocattleya* hort." to "× *Sophrolaeliocattleya* Hurst," "× *Vascostylis* hort." to "× *Vascostylis* Takakura," and "× *Wilsonara* hort." to "× *Wilsonara* Charlesworth & Co."

Comment: The existing citations contravene Art. 46.

Prop. (78). Add a new paragraph to Art. H.6 as follows: "If, when originally published, a condensed formula contains a hyphen not present in the names of the parental genera, then that hyphen must be removed without a change in the author citation.

"Ex. ×*Muirio-Gibbaeum* Jacobsen is corrected to ×*Muiriogibbaeum* Jacobsen."

Comment: The deletion of hyphens from generic names is forbidden under Art. 73, Note 3, but the removal of hyphens from nothogeneric names is clearly desirable. If this proposal is *not* accepted, then "×*Sophrolaeliocattleya*" in Art. H.6 Ex. 7 must be corrected to "×*Sophro-Laelio-Cattleya.*"

Prop. (79). Add a new Appendix VI. Incorporate the current edition of the International Code of Nomenclature for Cultivated Plants into the International Code of Botanical Nomenclature as Appendix VI and cross-reference the two Codes extensively. Suggest to the International Commission for the Nomenclature of Cultivated Plants that it would be advantageous if the two Codes were revised at approximately the same time in future. Suggest also that the publication of the ICNCP as a separate entity should cease.

Comment: Rowley's excuse (Nat. Cact. Succ. J. 37(2): 45. 1982) for coining several invalid nothogeneric names is that the ICBN and the ICNCP do not tell the same story and he chose to follow the laxer ruling of the ICNCP. This proposal would appear to be the only way to eliminate any possibility of any confusion that might be caused by the ICNCP's inability to reproduce faithfully the rules of the ICBN. See also Yeo's comment (Taxon 30: 270. 1981) on Rowley's Prop. 179 to the Sydney Congress. This present proposal might with some justification be regarded as a sledge-hammer to

crack a nut, as, so far as I am aware, only Rowley has ever been confused by the discrepancies between the two Codes.

Suggestions to the Editorial Committee:

1. Add the following example to Art. 7.10: "Ex. 3. *Rhipsalis* subg. *Acanthorhipsalis* K. Sch. included only one species name when originally published, namely *R. monacantha* Griseb., and the type of that species name is therefore automatically the type of the name of the subgenus. The name of the genus *Acanthorhipsalis* (K. Sch.) Br. & R. is formed from the name of *R.* subg. *Acanthorhipsalis* K. Sch. and must therefore have the same type, regardless of the fact that Britton and Rose chose as type one of the other two species names which they included."

Comment: Kimnach recently (Cact. Succ. J. (U.S.) 55(4): 177–182. 1983) inadvertently removed the type from the genus *Acanthorhipsalis* (K. Sch.) Br. & R. and thereby created the later homonym *Acanthorhipsalis* Kimn., which he has since renamed *Lymanbensonia* Kimn. (Cact. Succ. J. (U.S.) 56(3): 100–101. 1984). The intention of this proposal is to forestall the creation of further homonyms.

2. Insert the species name *Mammillaria stella-de-tacubaya* into Art. 23.2 Ex. 1, between *Adiantum capillus-veneris* and *Spondias mombin.*

Comment: This is the exact opposite of Rowley's Prop. 187 (Taxon 30: 272. 1981) to the last Congress. The name *Mammillaria stella-de-tacubaya* Heese (ut 'Mamillaria: Stella de Tacubaya, nov. spec.') is in Latin, was stated to be a "nov. spec.", and the epithet was not placed within quotation marks, therefore it is unreasonable to suppose that it was intended to be a cultivar name.

3. Add the following example to Art. 35.2: "Pfeiffer, in his Enumeratio Diagnostica Cactearum of 1837, recognizes ten genera of Cactaceae, six of which are subdivided into section-mark prefixed taxa, some of which are further divided into asterisk, Roman letter and Greek letter prefixed taxa, but no rank is given for any of these infrageneric taxa. Such names as '*Cereus* § 2. *Cereastri*', '*Mammillaria* *** *Brachythelae*', '*Opuntia* b. *Flavispinae*', and '*Cereus* B. *Attenuati*' are therefore valid but not priorable. Salm-Dyck, in his Cacteae in Horto Dyckensi Cultae anno 1849 (published in 1850), recognizes twenty genera of Cactaceae, and some of these are subdivided into section-mark, asterisk and dagger prefixed taxa. No rank is referred to in connection with the dagger prefixed taxa. Thus names such as '*Cereus* † *Pectinati*' are valid but not priorable. However, Salm-Dyck refers to his section-mark prefixed epithets as sections (on pages 78, 100, 103, etc.), and to his asterisk prefixed epithets as subsections (on pages 113, 122, 196 and 223). Even when genera are divided straight into asterisk prefixed taxa (without intervening section-mark prefixed taxa), as in *Echinopsis* and *Phyllocactus,* they are still referred to as subsections. Hence such names as '*Mamillaria* § 7. *Conothelae*' and '*Mamillaria* ** *Polyëdrae*' are valid and have priority from 1850 in the ranks of section and subsection respectively, and may be taken up as *Mammillaria* sect. *Conothelae* (Pfeiff.) SD. and *M.* subsect. *Polyedrae* (Pfeiff.) SD."

Comment: Hunt has stated (Cact. Succ. J. G. B. 33(3): 55. 1971), in connection with infrageneric names in *Mammillaria,* that "Most of the series names adopted by Schumann were coined many years earlier by Pfeiffer, Lemaire and Salm-Dyck, each of whom had grouped the species at two undefined levels within the genus", but this statement is untrue in the case of Salm-Dyck's 1850 work. Hence *M.* sect. *Hydrochylus* K. Sch. is a later synonym of *M.* sect. *Crinitae* SD. and *M.* sect. *Subhydrochylus* Backbg. ex Hunt is a later synonym of *M.* sect. *Polyacanthae* SD. The purpose of this example is to forestall the publication of further unnecessary later synonyms of Salm-Dyck's sectional names.

4. Add the following to the existing Rec. 46E, Ex. 1: "×*Aporophyllum* hort. ex Hunt or ×*Aporophyllum* Hunt."

Comment: All the existing cases refer to names of non-hybrid taxa, but hybrid taxa are more frequently attributed to "hort.", as this one was.

5. Add the following example to Art. 63.3: "The tribe Echinopsideae Friedrich & Rowley ex Rowley & Newton and the subtribe Echinopsidinae Friedrich & Rowley ex Rowley & Newton were both incorrect when published because they contain the type of Trichocereeae F. Buxbaum and Trichocereinae F. Buxbaum. The fact that Friedrich and Rowley submerge *Trichocereus* (A. Berger) Riccobono in *Echinopsis* Zuccarini does not affect the status of the names Trichocereeae and Trichocereinae as *Trichocereus* remains legitimate."

Comment: This may seem like an obvious point, but the publication of these two superfluous names (Rowley and Newton, Repert. Pl. Succ. XXV—1974, p. 6, Feb. 1976) would seem to indicate that it is not.

6. Add the following new example to Art. 73.10: "*Rosa* ×*toddii* Wolley-Dod (J. Bot. 69 (Suppl.): 106. 1931) was named after Miss E. S. Todd, and therefore must be corrected to *R.* ×*toddiae* Wolley-Dod. *Cereus grandiflorus* var. *maynardi* Paxton (Paxton's Mag. Bot. 14: 75. 1846 ['1847']) was named after Viscountess Maynard, and therefore must be corrected to *Cereus grandiflorus* var. *maynardiae* Paxton. *Cereus northumberlandia* Lambert (Gard. Mag. (ed. Loudon) 17: 91. 1841) honours the 4th Duke of Northumberland, and must therefore be corrected to *Cereus northumberlandianus* Lambert."

Comment: These three cases are intended to show more clearly than the existing Ex. 16 how Art. 73.10 operates.

7. Delete Art. H.6, Ex. 4.

Comment: ×*Aporophyllum* Johnson is a red herring; it was published in one of Johnson's trade catalogues in 1955 and therefore is not effectively published under Art. 29.5 and has no botanical standing whatsoever. The next subsequent author to use the name ×*Aporophyllum* was Hunt in 1966, who defined it as *Aporocactus* × *Epiphyllum* and attributed it to "Hort." Consequently, ×*Aporepiphyllum* Rowley is a later synonym of ×*Aporophyllum* hort. ex Hunt.

8. Add the following as a new example to Art. H.6.2: "The following names are not formed in accordance with Art. H.6.2 and are therefore invalid (the valid equivalent is shown in parentheses): (1) ×*Gastrolea* Walther for *Aloe* L. × *Gasteria* Duval (=×*Gasteraloe* Guillaumin), (2) ×*Heliaporus* Rowley for *Aporocactus* Lem. × *Heliocerus* (Berger) Br. & R. (=×*Aporoheliocereus* Knebel ex Rowley), (3) ×*Heliocryptus* Meier for *Cryptocereus* Alex. × *Heliocereus* (Berger) Br. & R. (=×*Heptocereus* Heath), (4) ×*Helioselenius* Rowley for *Heliocereus* (Berger) Br. & R. × *Selenicereus* Br. & R. (=×*Seleliocereus* Guillaumin), (5) ×*Lengratophyllum* Rowley for *Graptopetalum* Rose × *Lenophyllum* Rose (=×*Lenaptopetalum* Rowley), (6) ×*Pachgerocereus* Moran for *Bergerocactus* Br. & R. × *Pachycereus* (Berger) Br. & R. (=×*Pacherocactus* Rowley), (7) ×*Seleniaporus* Rowley for *Aporocactus* Lem. × *Selenicereus* Br. & R. (=×*Seleniporocactus* Rowley), (8) ×*Stenomyrtillus* Rowley for *Myrtillocactus* Console × *Stenocactus* (Berger) Riccobono (=×*Myrtillenocereus* Rowley)."

Comment: As the above list shows, there are several of these invalid names and it is probable that more will be coined unless the Code explicitly denounces them.

9. Add the following to Art. H.6.4, Ex. 7: "×*Aporoheliochia* Heath (=*Aporocactus* × *Heliocereus* × *Nopalxochia*); ×*Chamaelopsis* Glass & Foster (=*Chamaecereus* × *Echinopsis* × *Lobivia*)."

Comment: The present four cases are all from the Orchidaceae, but trigeneric hybrids exist in other families as well!

10. Add the following new example to Art. H.6.4: "×*Helioaporocryptus* Meier is invalid because the final element of the name is not the whole or last part of one of the parental generic names. The correct name for the hybrid between *Aporocactus, Cryptocereus* and *Heliocereus* is ×*Meierara* Heath."

Comment: The Code already lists four examples of correctly formed trigeneric names; it would be useful if the Code also listed an example of an incorrectly formed name.

11. Add a new example to Art. H.7.1 as follows: "*Rosa* nsect. ×*Gallico-Synstylae-Indicae* Roche (pro sect.) is invalid because the number of syllables exceeds eight; *Rosa* nsect. ×*Canino-Gallico-Synstylae-Indicae* Roche (pro sect.) and *R.* nsect. ×*Cinnamomeo-Gallico-Synstylo-Indicae* Roche (pro sect.) are both invalid because they are quadrisectional hybrids and should therefore be named after persons."

Comment: The late Baronne Gisèle de la Roche coined several of these *Rosa* nothosectional names, but, regrettably, they would all appear to be invalid, some for more than one reason. The purpose of this proposal is to forestall the creation of further invalid nothosectional epithets. Due to their extreme length, Baronne de la Roche's nothosectional names are only very rarely used, but, nevertheless, it would be advantageous if they could be replaced with valid alternatives, so that the few authors who wish to refer to *Rosa* nothosections would at least have valid names available. Unfortunately, it would be most unwise to attempt to rename such taxa as *R.* nsect. ×*Gallico-Indicae* Roche at present, as it is far from clear whether *R.* sect. *Caninae* DC. ex Ser., *R.* nsect. ×*Centifoliae* DC. ex Ser. (pro sect.) nom. inval., *R.* sect. *Cinnamomeae* DC. ex Ser., or *R.* sect. *Gallicae* DC. ex Ser. should be referred to as *Rosa* sect. *Rosa.*

12. Add the following example to Art. H.12.1: "The names ×*Aporoheliocereus smithianus* nvar. *smithianus* and ×*A.s.* nvar. *mallisonii* (Otto & Dietrich) Heath were not stated to be descended from different parental taxa at varietal rank when originally published, and must therefore be referred to as ×*A. s.* var. *smithianus* (pro nvar.) and ×*A. s.* var. *mallisonii* (Otto & Dietrich) Heath (pro nvar.) respectively."

Comment: The use of the rank of nothovariety in the original publication was an error.