



Proposals on Botanical Nomenclature

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whilst the latter is dependent upon specimens (or substitutes for specimens). Many botanists now tend to overlook the importance of the description which is still required to ensure valid publication of names; descriptions may be faulty, incomplete or at least lacking important details, whilst the specimen (it is hoped) supplies everything incontrovertibly. It is unfortunate that very many descriptions are inadequate for identification purposes; many also are inaccurate due to either faulty observation or misuse of technical terms.

The deficiencies of a description in relation to its practical value as an aid to identification has often led to the acceptance, for the purposes of valid publication, of printed matter which does not satisfy the basic requirements of unique application and distinctiveness, and which furthermore was not intended by the author to pass for a distinguishing description. As an example may be quoted the publication by Robert Brown (1826) of the name *Erythrophleum*. The "diagnostic" characters mentioned by Brown were sufficient only to place the genus in its correct taxonomic position and were not intended to do more than this. They were characters shared by *Erythrophleum* amongst other genera recognised by Brown; they did not serve in any way to describe the genus as an entity distinct from them. Nevertheless, Brenan's proposal (Taxon 9: 193. 1960) to conserve *Erythrophleum* has been challenged as being unnecessary on the plea that Brown's remarks were sufficient to allow them as a description in the sense of the Code.

In this particular case, Brown was treating *Erythrophleum* a genus known to him from a specimen so named by Afzelius and first mentioned as of uncertain affinity in his appendix to Tuckey's "Congo" (p. 430. 1818). The fact of the name having been given by Afzelius, according to the practise of the time, absolved Brown from publishing a formal description before making use of it.

Relevant to this topic also is the discussion which resulted in the present citation of *Suaeda* Forsskål ex Scopoli (1777) in the list of *nomina conservanda* (see Brenan, Taxon 3: 65. 1954 and Rickett, Taxon 7: 189. 1958). That there must always be difficulty in deciding what is the minimum text required for a description to satisfy the rules concerning valid publication is admitted; it must be clear also that some definitive guidance should be incorporated in the Code. It is therefore proposed that the proposal by Ross cited above should be debated at the forthcoming Congress (Edinburgh 1964). (*Proposal 196*).

PROPOSALS ON BOTANICAL NOMENCLATURE

F. MISCELLANEOUS NOMENCLATORIAL MATTERS

Maxwell S. Doty and Charles H. Lamoureux *

During every other spring semester the Botany Department of the University of Hawaii conducts a nomenclature seminar each week for a period of about four months. During these meetings a large number of nomenclature cases are considered as well as various fundamental, classical and special aspects of botanical no-

menclature and the relationship of nomenclature to taxonomy.

From these seminars there have arisen three concepts concerning systematic botany: *taxonomy* is the practical art of circumscribing and delimiting taxa; *phylogeny* is the study of the interrelationships among organisms; and *nomenclature* is a formal discipline, a jurisprudential activity, that guides the selection of the symbols by which we communicate, *i.e.*, the names of the taxa used. At the present time, of

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necessity, taxonomy and phylogeny are based primarily on opinion and interpretation of observations. Nomenclature, however, can be based on facts. Nomenclature, in essence, provides the handles by which we manipulate the pots in which the different individual organisms are found when sorted as to kind. Consistency in nomenclature is very desirable and so, as in the case of the standardized handles on the controls of airplanes, botanists have set up standards of form and standard methods of determining the correct name for a given taxon. These standards are preeminently the *type method* to determine which names apply and *priority* to determine the oldest legitimate name (i.e. the correct name) among those names that apply.

For the Tenth International Botanical Congress this seminar group would like to have the following points considered, the adoption of which it believes would simplify and promote application of the principles of the Code. These are arranged in the serial order of the 1961 edition of the Code, but are preceded by two general proposals.

General Proposals to the Nomenclature Committee

101. Though a deadline is now advertised in "Taxon" and elsewhere, it is thought a standard deadline should be established for presenting suggested modifications to the Code and suggestions to the editorial committee before future Congresses. This suggestion is made only to accompany and in support of the two proposals of the editorial committee (Taxon 12: 111-112). This could be incorporated in Division III of the Code "Provisions for modifications of the Code".

It is proposed that the Nomenclature Committee establish a deadline for the submission of nomenclatural proposals to each future Congress one year in advance of the date on which that Congress is to convene.

102. Various individuals have expressed confusion as to how they might obtain copies of the Code. This is especially frequently expressed by beginners in the field of taxonomy, and it is desirable that their use and application of the Code be facilitated as much as possible.

Therefore: it is proposed that the editorial committee be directed to publish as a part of the "front matter", e.g., centrally on what would be page 6 of the 1961 edition, the price and address and other directions for obtaining a copy of the Code and membership in the International Association for Plant Taxonomy.

Proposals concerning the Principles

103. It is proposed that the asterisk and footnote concerning the relationship of Articles 45 and 65 to Principle I be removed. Article 65 does not need to be cited here any more than do many others.

104. It is proposed that the word "valid" be included in Principle III, so that the Principle reads "*The nomenclature of a taxonomic group is based upon priority of valid publication.*"

Proposals concerning the Rules and Recommendations

105. *Article 3.* It is proposed that Recommendation 41A be transferred to Article 3, and numbered Recommendation 3A. (See comments under Article 41.)

107. It is suggested that *phylum* be sanctioned by the Code in place of *division*. Where cryptogams are concerned, *division* is often based on degree of morphological complexity rather than on phylogeny. The use of *phylum* is becoming common among students of systematics and text books even though not sanctioned by the Code as a taxon.

Article 6. As a matter of semantics a name, standing by itself, cannot be "contrary to the rules", only its usage (e.g., in that form, position or application) can be "contrary to the rules."

108. Therefore: it is proposed that the fourth sentence of Article 6 be made to read "*An illegitimate name or epithet is one that has not been or can not be put into use in accordance with the rules.*"

Article 7. It does not matter to what taxon pre-starting point authors may have applied a given name, and it does not matter to what taxon authors may have applied new names that were not validly published. What does matter is to what taxon the author of a name applied it when it was first validly published. There are many cases especially among the Fungi where the post-1821 or post-Friesian author, in validly publishing a name, apparently with intent applied the name to quite a different thing than did a pre-starting point author of the same name. This is one of the few excuses for the later starting points. In other cases the post-starting point author thought he was providing a new name in the place of an older, less appropriate, name but in doing so applied the new name to a taxon quite different from that of the pre-starting point author.

109. Therefore: it is proposed that the first sentence of Note 4 be amended to read "A new name or epithet validly published as an avowed substitute (nomen novum) for an older name or epithet is typified by the type of the older name unless that would mean altering the application by use of pre-starting point information."

110. And therefore: it is proposed that the following sentence be added to Note 7 of Article 7: "However the important point is the application of the name by the first post-starting point author and not the way pre-starting point authors may have applied the name if a difference exists."

Article 9. Many systematists are opposed to the idea that all organisms for which the International Code of Botanical Nomenclature is used are "plants."

111. Therefore: it is proposed that the word in the first paragraph in the phrase be changed so this phrase reads "... for small herbaceous plants and for most non-vascular organisms, . . ."

112. Article 9, Note 2. It is proposed that the words "those pieces" be used in place of "parts" so that this note reads "If this specimen is cut into pieces (sections of fossil wood, pieces of coalball plants, etc.) all those pieces originally used in establishing the diagnosis ought to be clearly marked." To this then should be added "All these pieces when separated from the holotype are isotypes."

113. Article 11. It is proposed that it would be appropriate to change "legitimate one" to "legitimate name." The paragraph would then read "For any taxon from family to genus inclusive, the correct name is the earliest legitimate name with the same rank, except in cases of limitation of priority by conservation (see Articles 14 and 15)."

114. Article 13. It is proposed that Article 13, Note 1, be changed by deleting "(See Art. 41)", and by adding at the end of Note 1 "These generic names are treated as having been validly published in 1753 and 1762-63, respectively."

115. Article 23. Under the last example concerning *Apocynum adrosaemifolium* it is proposed that there be added the following sentence: "Linnaeus changed this, himself, in the second edition of the *Species Plantarum* to *A. androsaemifolium*."

116. Recommendation 23B, part (i). It is proposed that this be clarified by substituting for the present phrase the phrase: "Not to

adopt, use, or refer to or publish names recorded by authors in correspondence, travellers' notes, herbarium labels, or similar sources, attributing them to their authors, unless the adoption, usage, reference or publication of them has been approved by their authors."

117. Article 41. Article 41 is largely redundant, since the material covered therein is treated in Articles 13, 32, and 42. Recommendation 41B is covered by Recommendation 20B. Therefore it is proposed that Article 41 be eliminated; that Article 13, Note 1, be changed as suggested above; and that Recommendation 41A be placed under Article 3 as Recommendation 3A.

118. Article 43. It is proposed that the words "otherwise validly" be added to the Note so that it reads "This Article applies to specific and other epithets otherwise validly published under Anonymous and other words not intended as generic names (see Article 20, Note (1))."

Article 45, Note. It is thought that in the Note the words in the second sentence "legitimate or not" are a ghost of former applications of the word legitimate. Under the present usages in the Code these words should be changed to "correct or merely legitimate" for illegitimate names need not be considered here.

119. It is proposed that the wording for the second sentence of the Note become "However, validly published earlier homonyms, whether correct or merely legitimate, shall cause rejection of their later homonyms (unless the latter are conserved)."

Article 45, paragraph following the Note. It seems that much of this is unnecessary. The form of names, including the form of names for algae, is covered in Chapter III, and by the last phrases of this second part of the Article itself.

120. Therefore: it is proposed that the second part of Article 45 beginning "If a taxon . . ." be reworded to read "If a taxon is transferred from the animal to the plant kingdom, its name or names shall be automatically accepted as having been validly published under the Botanical Code at the time of its valid publication as the name of an animal if that publication is not in conflict with the other articles of Chapter IV."

121. Article 46. It is proposed that the words "or co-authors" be included so that the internal phrase about authorship reads "... cite the name of the author or co-authors who first validly published the name . . ."

Article 55. To indicate the special relationship between two unlike objects such as a nomenclatural type and a name, idiomatically in English “for” is generally used. When an essential or characteristic part is meant one uses “of” as in “one load of gravel,” “typical of men,” or “part of a puzzle.” One would say in comparison “a truck for the gravel,” “houses for men,” or “a box for the puzzle.”

122. Thus, to indicate the special relationship between unlike things, it is proposed that the last five words of Article 55 reading “. . . the type of the epithet” be changed for grammatic and idiomatic reasons to read “. . . the type for the epithet,” and that the editorial committee make this change elsewhere in the English edition of the Code as appropriate.

123. **Article 64, three items.** a) The colloquialism “is now reduced to” in the examples following the Note should be changed for reasons of grammar to “is now considered congeneric with.” b) In the second example under the second part of this Article the phrase beginning “. . . a form of nomenclature which allows . . .” should be changed to read “. . . a form of nomenclature which would allow two varieties bearing the same epithet in the same species.” c) In the third part of this Article the word “new” should be removed so that the part reads “When the same name is simultaneously effectively published for more than one taxon, the first author who adopts one of the names indicating its application to one of the taxa rejecting the other(s), or provides another name for one of these taxa, must be followed.”

124. **Article 69.** This article is clearly in conflict with the type method, and does not

further the application of the Principles of the Code. Therefore: it is proposed that Article 69 and its examples be omitted from the Code in the future.

125. **Article 71.** Article 71 deals with taxonomic opinion rather than nomenclature. The interpretation of a specimen as a monstrosity is a matter of opinion, and the Code should be concerned only with matters of fact. Therefore: it is proposed that Article 71 be omitted from the Code in the future.

197. **Article 72.** It would seem that the Note to this Article would be clarified is reworded to read, in part, “When a new epithet is required an author may adopt an epithet which as previously given to the taxon was illegitimate, if there is no obstacle . . .”

198. **Proposal Concerning the “Guide for Determination of Types.”**

It is, as stated above in discussing modifications of Article 7, the objective of the type method to enable others to apply a validly published name to the same material as did the author who first validly published it. While this concept is in the meaning and wording of the first enumerated point of the Guide as it concerns the holotype, the wording is much less strong when it comes to the nature of the holotype itself, as discussed in Part 4B. Therefore: it is proposed that the words “Other things being equal, a specimen should be given preference . . .” be replaced and this be made to read “A specimen must be given preference . . .” and then conclude the Part as now worded. This same Part should editorially be made to include application to the other provisions of Article 13 as well.

G. PROPOSALS BY A. R. PINTO DA SILVA (LISBOA)

199. Preamble (page 15). To omit: “the tegral parts of them.” and to substitute as folnotes and examples attached to these are in-lows: “notes and examples are added to elucidate them.” (both rules and recommendations).

Comment – I think that this proposal follows the general policy in any code. Of course some “notes” now in the Code are not mere notes and will have to be changed into paragraphs of the article or recommendation (cf., f. ex., Art. 7 and Art. 9).

200. **Principle I** – To be reworded as follows: This Code deals exclusively with the nomenclature of every taxonomic group (phyto-

taxon^o), which may be abbreviated as taxon^{oo}) of the Plant Kingdom (Regnum Vegetabile).

Comment – See *Taxon* 8 (4): 116. May 1959.

201. **Principle II.** – Principle IV of the Code to be as follows: Each taxon with a given (taxonomic) circumscription, position, and rank can bear only one correct name.

Comment – See l.c.

202. **Principle III** – To insert as a new Principle: Names of taxa have no status under

^o) plural phytotaxa.

^{oo}) plural taxa.

this Code unless they have been validly published.

Comment — See Silva (Taxon, 8:6) and l.c.

203. *Principle IV* — Principle III of the Code but using “taxa” instead of “taxonomic groups”.

204. *Principle V* — Principle II of the Code but using “taxa” instead of “taxonomic groups”.

205. *Principle VI* — Principle V of the Code reworded as follows: The names of taxa governed by this Code (i.e., the scientific names of plants) are treated as Latin irrespective of their derivation.

Comment — See Silva (Taxon, 8:6) and l.c.

206. *Principle VII* — Principle VI of the Code, reworded and enlarged as follows: This Code is retroactive unless expressly limited and replaces all the earlier Codes, Laws and Rules dealing with the nomenclature of the Plant Kingdom.

Comment — See l.c.

207. To insert a new Principle VIII — This Code is to be followed by all those who need to use the nomenclature of phytotaxa and it may be modified or replaced only by action of the International Botanical Congress.

Comment — See l.c.

208. I would propose to include as a new Principle the last paragraph of the Preamble slightly reworded as follows: Principle IX — In the absence of a relevant rule or where the consequences of Rules are doubtful, established custom is to be followed.

209. I would suggest the inclusion of the following new Principle: Principle X — The only acceptable exceptions and limitations to Principles I to IX are those set out in the Rules and Recommendations of this Code.

Comment — See l.c.

210. Art. 1. If Principle I (Proposal 2) is accepted with such wording, Article 1 should be adequately reworded.

211. To include in Art. 6 or in a new Article of Chapt. II Sect. 1 other definitions. For ex.: Nomenclatural and taxonomic synonyms (cited but not defined in Art. 7), tautonym, rejected name, etc.

212. The Section 2 (typification) is much better in the 1961 edition than in the 1956 one, but I think that it could still be improved if the definition of *typus* was placed in Section 1 of Chapt. II and if the rules now scattered in the text and in the Notes of Art. 7 were codified in

one article, or more, in Sect. 2. The Notes inserted in Art. 7 seem to me too important to be considered simple notes. The two sentences under Note 2 are a good example of this: one definition and one rule in a sole paragraph forming a mere Note.

213. To change last part of the first paragraph of the Art. 7 as follows: “as a correct name or as a nomenclatural synonym.”

Comment — In fact taxonomic synonyms are not under consideration here.

214. To correct as follows Art. 7, Note 4, 2nd paragraph: “has not indicated a definite type.”

Comment — Will you compare with the French text.

215. The title and the ambit of Sect. 3 of Chapt. II to be modified as follows: *Section 3. Priority and its limitations. Conservation of names*. So entitled, this Section will include Arts. 11 (reworded), 14, 15, and 16, Section 4 being omitted.

216. To re-write Art. 11, the first paragraph being removed, because it does not deal with priority and would be perhaps better placed under Sect. 2 before Art. 7, and the Note being also removed to Art. 6 as it is a mere definition. This Note even appears after the term “combination” has been introduced in paragraph 3 of Art. 7. To change into a Note, or to delete, paragraph 4.

217. To reword Art. 12 as follows: “A name or an epithet of a taxon . . .”

218. Arts. 12 and 13 to be removed from Chapt. II and transferred to Chapt. IV.

Comment: Both deal with validity of publication.

219. To insert in Art. 14, Note 3: “(taxonomic synonyms)” to read: “. . . different types (taxonomic synonyms) that are cited in that list.”

220. To change the Notes under Art. 14 into articles or paragraphs.

Comment: They are not really simple notes but true statements.

221. To reduce Art. 15 and Rec. 15 A to notes to Art. 14.

222. To change Rec. 16 A into an Article, after rewording it.

Comment: The names of other ranks are ruled by articles and not by a single recommendation (see Arts. 17, 18, 19, 20, etc.). Such a new article (Rec. 16 A) might be reworded in

order to say whether the names concerned are substantives and what are their gender and number (cf. Art. 18). Were this matter treated in a new article, Rec. 16 A could then be maintained as it is.

223. To reword Art. 17 in order to give grammatical information.

Comment: See Prop. 222.

224. To reword the examples of Art. 18 as follows: "(from *Salix*, *Salicis*)" and "(from *Plumbago*, *Plumbaginis*)".

Comments: It must be noted that Rec. 73 G does not explain nor justify how the names *Salicaceae* or *Plumbaginaceae*, or similar cases are formed from the generic names. To mention merely the "stem" is perhaps not quite clear to many people. The proposed explanation under the examples, laconic as it is, seems useful.

225. In Art. 18, to place the paragraph "Examples" before the 2nd paragraph ("Names published . . .").

226. To insert in examples to Art. 19: "*Asclepiadaceae* (from *Asclepias*, *Asclepiadis*)".

Comment: See Prop. 26.

227. To add to Art. 20, at the end of the 1st paragraph: Such names are to be written with a capital initial letter.

Comment: Cf. Art. 21.

228. To give to the Code more coherence regarding the legitimacy of the use of the hyphen both for names and epithets (compare Art. 20 and Art. 23).

229. To delete the word "Valid" in the 3rd paragraph of Art. 22.

230. To write in Rec. 23 A, 2nd paragraph: "use of the substantive (or noun) in the genitive", in stead of "use of the genitive", and to reverse the examples.

231. To substitute in Rec. 23 B and else where in the Code the word "spell" for the word "pronounce".

Comment: Pronunciation (mainly where Latin words are concerned) is not ruled by the Code; it depends, of course, on the people of each country.

232. To omit the word "Valid" in Art. 25 2nd paragraph.

233. To cite or to define in Art. 32 *nomen nudum*.

Comment: The only ruling on the citation of each names and the abbreviation of this term is in Rec. 50 B.

234. To add to the last example given under Art. 33 another example taken from AGOSTI, *De Re Botanica Tractatus* (1770) (Cf. PICHI-SERMOLLI in "Opinions", p. 72, Committee for Phanerogams 1950-1954).

235. To give a more adequate example (not a contrary one, as the present is) under Art. 34, last paragraph.

Comment: This paragraph deals with cases of *not valid* publication and the example given deals with a case of *valid* publication.

236. In Art. 36, 1st and 2nd paragraphs, to omit "Latin" when referring to a previous publication, thus remaining: "or by a reference to a previously and effectively published diagnosis."

Comment: If names published before 1935 are acceptable as validly published when accompanied by a diagnosis in a language other than Latin (as ruled by the Art. 36, first part) I see no reason why such diagnosis can not be acceptable to validate a name for a new taxon published after 1935. (See Art. 44 in ed. 1952.)

237. Art. 41, 1st paragraph: To reword this paragraph in order to avoid the partial duplication now existing with Art. 32.

238. To weight the use of the word "corresponding" in Art. 40 applied to hybrids.

239. Art. 50: I propose that this Article be amended to read as follows: "When the status of a taxon bearing a binary or ternary name is altered from specific or infraspecific rank to hybrid or vice versa, the name of the original author must be cited within parenthesis and followed by that of the author who assigned the new status."

Comments: Expressions as "(pro spec.)" or "(pro var.)" etc. are used in other circumstances to explain a n.stat. and are not to be taken as nomenclatural terms. But what in my opinion is even more important is the meaning of the change from the points of view of both taxonomy and biology. So, using one of the examples of the Code: *Salix glaucops* (ANDERSS.) RYDBERG, based on *Salix* × *glaucops* ANDERSS.

240. Rec. 50 D: There might also be taken into consideration the very frequent case of only one author being responsible for the misidentification and justifying the formula "A non B".

241. Rec. 50 F: I think that if an epithet was originally written with an initial capital it might be so reproduced in the synonymy. I cannot understand this single exception. I

would suggest including some examples of the following type:

Ilex aquifolium . . . “*Aquifolium*” (not *aquifolia*)

Sedum rosea . . . “*Rosea*” (not *roseum*)

Allium victorialis . . . “*Victorialis*” (not *victoriale*)

Schinus molle . . . “*Molle*” (not *mollis*).

242. To add “and epithets” to the title of Chapt. V.

243. Art. 55: To transfer the last paragraph to follow immediately paragraph (2) thus putting all the examples together.

244. Art. 56: To give adequate examples for the three obstacles mentioned and for the last part of the Article.

245. Rec. 57 A(3): I propose the following text: “In cases of equality from these various points of view to select the name which seems the more appropriate.”

246. In Art. 62 is “modifications” the right word in every case? Some cases seem to me new names.

247. Art. 64, 1st paragraph: Delete the words “and validly” and add at the end of the 2nd sentence “unless it has been conserved.”

248. Art. 64, 2nd paragraph, in examples: To delete the word “validly” (which is used 3 times there).

249. Art. 64, 2nd paragraph, in examples: One example more could be inserted to illustrate the last part of my proposal 247, that of *Dunalia* SPRENG which was rejected in favour of *Lucya* (a name deleted in the 1956 ed.) and also in favour of *Dunalia* HBK, a later homonym.

250. Art. 65: It seems to me that a better understanding could be obtained if the last sentence was placed just following the 1st paragraph.

251. Art. 72, 2nd sentence, after the words “new name”, to add: “(*nomen novum*)”.

252. Chapter VI: To be called *Orthography and Gender of Names and Epithets*, and to delete Sections 1 and 2, or to change Rec. 75 A into a new Article including Rec. 75B.

253. Art. 73, and examples: I propose that Art. 73 and the examples under it be modified sufficiently to obtain uniformity, having *sylvaticus*, even when used by LINNAEUS, as an orthographic form that is not recommended.

Comment: It is established by this Article that *sylvaticus* when so adopted by LINNAEUS must not be altered to *silvaticus*, but that this

last orthography is to be adopted when establishing a new name. However, this criterion is not supported when “in order to bring uniformity” even the criterion of LINNAEUS is not followed (cf. Rec. 75 A, paragraphs (1) and (2), and also Rec. 73 E). It seems to me that this situation cannot be maintained.

254. To delete in Art. 73, Note 1: . . . “this being a matter of typography”.

Comment: See in *Taxon* 8(4): 117. 1959.

255. Rec. 73 B, paragraph (a). I propose the following at the end of the paragraph: “and except when the name ends in *ea* (as *Correa*); in this case no letter has to be added.”

Comment: This has been adopted in Appendix III (no. 4031). If not ruled as proposed, we would have to adopt *Corraeae*. In any case delete in the Index (p. 328) the name *Corraea* which is not mentioned in the text.

256. Rec. 73 B, paragraph (d). This paragraph to become a new recommendation with the following text: “Names accompanied by a prefix or a suffix, or modified anagrammatically or by abbreviation, count as different words from the original name”. The examples to be maintained.

257. Rec. 73 C. Add another example: “*Palhinhae*, from *Palhinha*.” Note that this rule acts also on epithets that are *not* new. (see Art. 73, Note 3).

258. Rec. 73 D. Why “pensylvanicum” and not “pennsylvanicum”? A misprint?

259. Rec. 73 G. To me there seems to be a contradiction between what is said about *Myosotis* in the paragraph (a) and the 2nd sentence of the Note. Cf. *Nidus-avis* in both situations. If two types of pseudocompounds are to be distinguished, the differences between them have to be explained.

260. Art. 75, 2nd list of examples, *Elodes* and *Elodea*. This example is only valid when the author’s names are cited. *Elodea* JUSS. and *Elodea* VENT. are typographical errors, or more probably orthographic variants, of *Elodes* ADANS., ADANSON being cited by JUSSIEU and by VENTENAT as the author of *Elodea*. But *Elodea* RICH. is distinct from *Elodes*, having no relation with that name. In the example above mentioned the citation should have the following form: “*Elodes* ADANS. and *Elodea* RICH. (non JUSS., nec VENT.)”.

261. Art. 75. I suggest the addition to the last series of examples of: “*Euphorbia Peplis* L. and *E. Peplus* L.; *Allium stramineum* Bss. and *A. stramineum* Bss. & REUT.

262. To be included in the appropriate place in chapter VI: "Following Latin usage, the letter *u* must be added to a terminal *q*, before the endings prescribed in Recs. 73 B and 73 C. Example: *Papaver Lecoquii* LAMOTTE, not *P. Lecoqii*."

263. Art. H 4. Is it correct to write "those of a higher order" when referring to hybrids? Would it be preferable to say "ternary or more complex hybrids"?

264. Art. H 5. Delete "collective". Every taxon is collective.

265. In the Index, p. 352. Delete the entries under "Numbers . . ." and "Numéros . . ." as neither are in the text of the present edition (1961).

266. I propose the addition of a new Appendix consisting of an alphabetical list of the abbreviations and the corresponding author's names.

H. PROPOSALS BY A. A. BULLOCK

In Taxon 7: 223-224 (1958), I drew attention to a certain conflict in the Rules between Articles 49 and 50 on the one hand and Articles 46 and 60 on the other. At Montreal the proposals made were dismissed, but I am still of the opinion that their incorporation in the Code would remove certain ambiguities.

The general argument was presented in the paper quoted above and it is not necessary to repeat it. One modification suggested is that the square brackets (conventionally used for the citation of pre-starting point authors) should be replaced by brackets in the form < . . . >; such brackets would always indicate the type and a change in rank or status, but would not have any bearing on the date of the name or epithet concerned for purposes of priority. Thus the author citation for *Fumaria solida* and *Corydalis solida* quoted under Art. 49 would become *F. solida* <Linnaeus> Miller and *C. solida* <Linnaeus> Miller Swartz. The facts (a) that Linnaeus first defined this taxonomic unit in an infraspecific rank, (b) that it was raised to specific rank by Miller, and (c) that it was transferred to *Corydalis* by Swartz, are thus recorded.

The amendments necessary if this suggestion is approved are of an editorial nature, affecting Rec. 46A (proposal 267), Art. 49 (proposal 268), and Art. 50 (proposal 269), see Taxon 7: 223-224.

I. PROPOSALS BY Y. PROKHANOV

270. Delete Recommendation 7C, for it merely repeats a part of Article 7, Note 6, and thus is superfluous.

271. Add to Article 22, or insert as a new Article, (through some re-shuffle, e.g. by dispensing with a separate Article 27) the following nomenclatural statute: "An epithet of a subdivision of a genus, whether in the form of a substantive or in the form of a plural adjective, if derived directly or indirectly from the epithet of one of its constituent species points by implication to this species as the legitimate type (holotype) of the taxon concerned, unless the original author designated another species. If, however, a subsequent author has indicated a species other than that bearing the epithet after which a subdivision of a genus has been named as the type (lectotype) of the subdivision of the genus, the legitimate type must be reinstated".

"Example: The type (lectotype) of the subgeneric name *Euphorbia* subg. *Esula* Persoon (Syn.Pl. 2: 14. 1807) was indicated as *E. peplus* L. by Croizat (Rev. Sudamericana Bot. 6: 13. 1939). However, this is illegitimate, as the subdivisional epithet, *Esula*, is directly derived from the epithet of one of its species, *E. esula* L. (Sp. Pl. 461. 1753). Thus, *E. esula* L. is the legitimate type (holotype) designated by implication by the original author, Persoon."

"Note. If, however, the epithet of a subdivision of a genus has been derived not from the legitimate epithet of one of the species of the genus but from a later homonym applied to another species, the latter, though bearing a different epithet, must be considered the very type of the subdivision of the genus."

"Example: The name *Gossypium* sect. *Indica* Tod. (Osserv. 19. 1863) does not have as its type *G. indicum* Medik. (Bot. Beobacht 1783: 198. 1784), which actually belongs to another section of *Gossypium*, but, being based on the later homonym *G. indicum* Lam. (Encycl. Méth. 2: 134. 1786), has as its type that species whose correct name is *G. arboreum* L. (Sp. Pl. 693. 1753).

The type concept has led to the adoption of typification of taxa by implication, through the names or epithets given to the taxa. Thus, Article 18 provides for the typification of families, and Article 19 for the typification of subfamilies, tribes and subtribes, by the genus after which the names of the taxa are constructed. I realize that the full application of this practice into the subgeneric sphere would re-

quire a thorough reconstruction of the present Articles 22, 23, which is now out of the question. However, in the not infrequent cases where epithets of subdivisions of genera were named after one of their constituent species such naming, accordingly, indicates the implicated type. Thus, this broadening of the typification by implication would mean a more simple and more precise typification of certain subdivisions of genera. Meanwhile, any typification that is contrary to the names or epithets of taxa, of which unfortunately there are many cases, is a source of confusion. To avoid such undesirable cases and thus to put typification in the subgeneric sphere into order in accordance with the Code has been the aim of the present author.

272. Insert into Article 23, after the examples on tautonymy—*Linaria linaria*, *Nasturtium nasturtium-aquaticum*, the following paragraph: "The epithet of a species must not be formed from the name of the genus to which it belongs by adding the ending *-oides* or *-opsis*. However, an epithet of a species may be formed by adding the ending *-oides* or *-opsis* to a name of a genus to which the species concerned does not belong, but which it in some way resembles."

"Examples: Not permissible: *Leontopodium leontopodioides*, *Matricaria matricarioides*. — Permissible: *Anemone ranunculoides*."

In the present Code there is an obvious, and almost inexplicable inconsistency in the application of certain kinds of epithets, on the one hand, for subdivisions of genera (Art. 21, Rec. 21B) and, on the other hand, for species (Art. 23). Thus, epithets of subdivisions of genera formed from the name of the genus to which the subdivision belongs by adding the ending *-oides* or *-opsis* are prohibited, as being absurd ones. At the same time tautonymy is legalized for some subdivisions of genera, as a means of designating the type subgenus and the type section (Art. 22), which is quite reasonable. However, in regard to species the reverse practice is suggested. Tautonymy, though having no undesirable effect, is here prohibited, whereas the very absurd epithets derived from the name of the genus to which the species belongs with the ending *-oides* or *-opsis*, strangely enough, are permissible for species. Naturally, it would be desirable to have the practice in regard to species brought into line with that in subdivisions of genera. Most people, I hope, will agree that "*Linaria linaria*" or "*Sophia sophia*" sounds better than "*Leontopodium leontopodioides*". But in view of the customary practice

in botany, I do not venture to suggest now the deletion of the paragraph prohibiting the quite admissible tautonymy in epithets of type species (Art. 23), but, I advocate very strongly the above insertion, so as to dispense with the absurd epithets among species.

273. Amend the first paragraph of Article 32 in the following manner: "In order to be validly published, a name of a taxon must (1) be effectively published (see Art. 29), (2) have a form which complies with the provisions of Chapter III (but see Art. 18, notes 1 and 2), and (3) be accompanied by a description of the taxon, indicating morphological characters, or by a reference (direct or indirect) to a previously and effectively published morphological description of it."

Accordingly, add to Article 32 the following new notes: "Note 4. With the exception of Bacteria and special forms (*formae speciales*) of parasitic fungi (see Rec. 4A), any diagnosis or description of a taxon of plants, lacking morphological data and merely pointing out physiological properties or giving geographical information etc., is invalid."

"Note 5. Various strains of plants differing in their chromosome complements (polyploids, aneuploids etc.) may be validly described as separate taxa even if morphological traits by which they can be externally distinguished one from another are very slight. Those strains which differ in no morphological characteristics but only in their chromosomes cannot be validly described."

"Examples. The diploid ($2n=16$) and the tetraploid ($2n=32$) forms of *Medicago falcata* L., which externally are indistinguishable, cannot be treated as separate taxa (whether on the specific or infraspecific level) on account of their different crossability with the always tetraploid *Medicago sativa* L. ($2n=32$). — *Gossypium* sect. *Hirsuta* J. B. Hutchinson et al. Evolution of *Gossypium* 36 (1947), even if it were described in Latin, would not be validly published, for the diagnosis defines the section merely by the number of chromosomes ($n=26$), whereas "linted species" are included in both this and the preceding section, *Gossypium* sect. *Herbacea* J. B. Hutch. et al. l.c. 32."

This proposal has resulted from a desire to emphasize the everlasting superiority of morphological characters in taxonomy. Even with the increasing use in our days of physiological, genetical, cytological, embryological and geographical data in the whole field of biosystematics, the fact remains that all of these present accessory information, notwithstanding their

importance, and that plant taxonomy still rests primarily on morphological study. Unfortunately, this principle has not infrequently been neglected in recent times, especially by writers in special aspects of biosystematics, who, though not taxonomists, have to do with plant taxonomy. Thus, recently many taxa of *Gossypium*, especially sections, have been defined by geneticists (e.g. J. B. Hutchinson et al.) mainly or exclusively by genetical data, by their ability to hybridize with one another. As the history of plant taxonomy suggests, a taxon can be satisfactorily determined only by morphological characters available either to the naked eye or to the microscope. While fully appreciating the great value of various fields of biological study for plant taxonomy, it is impossible to underestimate here the leading role of morphology for all time. It is worthwhile to recall this important fact in the Code.

274. Amend the first paragraph of Article 41 to be read as follows: "In order to be validly published, a name of a genus must be accompanied (1) by a description of the genus indicating morphological characters, or (2) by a reference (direct or indirect) to a previously and effectively published morphological description of the genus in that rank or as a subdivision of a genus, whether under the same name or another name."

As for the mentioning of a morphological description, indicating morphological characters, see the preceding proposal, referring to Article 32. Besides, the final phrase "whether under the same name or another name" has been added here on account of the recent reconsideration of the rejection of *Leopoldia* Herbert. This name has proved to be validated by a reference to a previous invalid, though effective, publication of the same name, as a nomen provisorium. This shows the desirability of mentioning the two possible cases in Article 41, the one cited here, where an existing invalid name has been validated, and the other, when for some reason or other a new name is being substituted for an earlier invalid or illegitimate name.

275. Change Article 69 to be read as follows: "A name must be rejected as ambiguous (nomen ambiguum) if the taxon to which it originally referred was first broadly circumscribed or vaguely described and then for a long time restricted nomenclaturally, or typified, in two or more irreconcilable manners, the typifications in no way contradicting the original description or diagnosis and so equally agreeing with it."

"Examples: *Lavandula spica* L. (Sp. Pl. 572. 1753) included . . . must be rejected (see Kew Bull. 1932: 295). — *Betula alba* L. (Sp. Pl. 982. 1753) comprises in its original sense the two species *Betula pendula* Roth (Tent. fl. germ. 1: 405. 1788) and *B. pubescens* Ehrh. (Beitr. 6: 98. 1791). The name *Betula alba* was typified by Roth (1788) in the sense of *B. pubescens* and somewhat earlier by Du Roi (1771) in the sense of *B. pendula*. Subsequently it has been used in both senses. It has therefore become ambiguous and must be rejected. — *Fumaria bulbosa* L. was typified by Miller in two opposite ways, at first (Gard. Dict. ed. 8. 1768) in the sense of *Fumaria cava* (L.) Mill., or *Corydalis cava* (L.) Schweigg. et Kuerte, and then (Gard. Dict. Abr. ed. 6. 1771) in the sense of *Fumaria solida* (L.) Mill., or *Corydalis solida* (L.) Sw. Consequently the name must be rejected."

"This does not apply to the name of a taxon originally well defined, so as to leave no doubt about its exact application, but subsequently misapplied by one or more authors to some near-by taxon circumscribed in such a way as to exclude the original type of the name being used for the taxon concerned. Such a misapplied name must be regarded as a later homonym and consequently rejected in this wrong sense, under Article 64, notwithstanding the common later usage. Thus, the name in its original sense, or the earlier homonym, if neglected, must be reinstated. If it is desirable to exclude possible temporary confusion, the reinstating author may be cited after the name of the original author, preceded by the word *rest.* (*restituit.*)"

"Examples: *Rhinanthus major* L. (Amoen. Ac. 3: 53. 1756) originally referred strictly to one species subsequently known as *Rhinanthus alectorolophus* (Scop.) Poll. Unfortunately, the name *Rhinanthus major* was used by Ehrhart (Beitr. 6: 144. 1791) and persistently later on, in a sense that excluded its original type and, thus, for a different species. The latter, however, must bear another name, *Rh. glaber* Lam. (the name *Rh. vernalis* (Zing.) Schischk. et Serg. being illegitimate), whereas the name *Rhinanthus major* L. must be reinstated and used in its original sense. — Pugsley rightly reinstated *Orchis latifolia* L. (Sp. Pl. 941. 1753) in its original sense, since its original diagnosis leaves no ambiguity. The name *O. latifolia* L. *rest.* Pugsley must not be replaced by any later name, such as *Orchis strictifolia* Opiz (1825) or its misapplied conventional name *O. incarnata* auct.non L."

Most people will agree that Article 69 in its present form, with its vague wording, is a sort

of anachronism, one of the weak points of our Code. Some authors like St. John (*Regnum vegetabile* 14, Article 65, Proposal A) would like to dispense with this article altogether. However, the confusion resulting would be so great that the majority failed to agree with such a far-reaching proposal (preliminary vote 91: 125, final 124: 232). At the same time there is urgent need to make Article 69 more precise by limiting its scope. Such was the aim of my former proposal (*Regn. veget.* 14, Art. 65, Proposal C). The preliminary vote was in its favour (77: 75), but the final vote failed to obtain the necessary majority.

In view of the aforesaid, I decided to advance this proposal again, having, however, brought the wording into conformity with the type concept. There are good reasons for adopting such an amended Article 69. The application of the article would be specified, through dispensing with the unnecessary rejection of originally well-defined names on the ground of their subsequent misapplications, for which the original author is in no way responsible.

The reinstatement of a well-defined name in its initial sense could involve only some temporary confusion, but this could hardly present any serious obstacle to the subsequent usage of such a name. However, any name of a taxon with an original vague description, when there is ambiguity brought about by two or more persistent incompatible applications of the name concerned, must be permanently rejected.

276. Insert into Article 73, after Note 6, the following note: "Note 7. The letter r must be changed to rh (between vowels to rrh) in words of Greek origin, whereas in Latin words

and others of non-Greek origin, if necessary, the reverse changes must be made."

Such a note is desirable, for it supplements the already existing notes in the light of an orthographic error that, though not infrequent, has till now been somehow overlooked.

277. Insert into Examples of retention of original spelling, in Article 73, into the second example the additional name *Gleditsia* L., or substitute there *Gleditsia* for *Valantia*, so as to have the following example *Gleditsia* L. (1753) [, *Valantia* L. (1753)] and *Clutia* L. (1753), commemorating *Gleditsch* [, *Vaillant*] and *Cluyt* respectively, must not be altered to *Gleditschia* [, *Vaillantia*] and *Cluytia*: Linnaeus latinized the names of these botanists deliberately as "*Gleditsius*" [, "*Valantius*"] and "*Clutius*".

The reason for the inclusion of *Gleditsia* L. as an example of latinized names is the popularity of the genus in horticulture and the desire to draw attention to the hardly known legitimate name of this ordinary tree. Moreover, *Gleditsia* is better known than either *Valantia* or *Clutia*, and so, if it is desirable not to enlarge the example, it is preferable to substitute *Gleditsia* for *Valantia*, the least popular of the three.

K. PROPOSAL BY L. J. WICKERHAM

278. Insert the following statement in line 6 of Article 59: "Active bisexuals with the ability to produce unisexual cells are considered to be the perfect state of yeasts that possess a protosexual cycle but neither are ascosporic nor a basidiosporic sexual cycle."

NEWS AND NOTES

CHARLES BAEHNI †

We deeply regret to announce the death on 23 January 1964 of Professor Charles Baehni of Geneva. The news of this sudden death reached us when this number was being printed.

R. E. WOODSON †

We regret to announce the death of Dr. Robert E. Woodson, professor of botany at Washington University and curator of the herbarium of the Missouri Botanical Garden. Dr. Woodson died at St. Louis on 6 November 1963 at the age of 59.

PAUL H. ALLEN †

We regret to announce the death on 15 November 1963 at New Orleans, La., of the botanist and explorer Paul H. Allen. Allen was known for his extensive botanical exploration of Central America and Colombia and for his work on the Orchids for the *Flora of Panama*.

ASSOCIATION FOR TROPICAL BIOLOGY

The Officers, Council members, and Chairmen of standing committees of the Association for Tropical Biology (ATB) met in the Panama Canal Zone on November 4-8, 1963. This assembly represented the first regular meeting of the Council, the Association having been in-