

(218–222) Miscellaneous proposals to amend the Code

Paul C. Silva

University Herbarium, University of California, Berkeley, California 94720, U.S.A. psilva@berkeley.edu

(218) In Art. 7.11, add Art. 9.18 to the parenthetical references:

Art. 9.18 deals with priority of epitypification. As with lectotypification and neotypification, the act of epitypifying should clearly be distinguished from the citation of a previous epitypification.

(219) The Editorial Committee is instructed to provide a glossary of technical terms in the ICBN:

A glossary would facilitate interpretation of the Code by obviating the need to find the appropriate entry in the index and then find the definition in the text. More importantly, having the Editorial Committee focus on the definition of terms may help them guard against inconsistencies, redundancies, and ambiguities in the Code. For example, the word “available” is used in at least three different ways. In “available element” (Art. 9.17; Art. 10.5) the word is used in an ordinary sense referring to potential types, but “available epithet” (Art. 11.5; Art. 58) is a technical term meaning “an epithet that does not form a later homonym in its new position or rank”. An “available name” (Art. 6.4, Ex. 4; Art. 53.1, Ex. 2) is a name that is either an initially legitimate name that has not been suppressed by conservation or sanctioning or an initially illegitimate name that has been made legitimate by conservation or sanctioning. An “unavailable name” (Art. 15.2) is a name that may not be used either because it is illegitimate or because it is suppressed by conservation or sanctioning. It would be useful to clarify these various usages and terms in a glossary. Ironically, the International Code of Botanical Nomenclature contains a definition of “available name” as used in the International Code of Zoological Nomenclature (Art. 45, Ex. 4, fn.).

(220) In the last sentence of Art. 16.1, delete “which apply to taxa with a recognized circumscription, and”:

The wording “recognized circumscription” is confusing and meaningless. Every taxon has a circumscription, which must have been recognized at least by its describer.

(221) Delete the second sentence of Art. 46.5 and Art. 46 Ex. 22:

According to Art. 45.3 only legitimate names are taken into consideration for purposes of priority. It follows that an illegitimate name may not serve as a basionym and thus its author may not be placed in parentheses as part of the authorship of the combination. Placing the author of an invalidly published name in parentheses should be equally proscribed.

(222) In Art. 13.1(e), delete “NOSTOCACEAE HOMOCYSTEAE” and “NOSTOCACEAE HETEROCYSTEAE”:

Later starting points for various groups of algae were introduced into the Code by the Brussels Congress in 1910 at the urging of C. F. O. Nordstedt. While Nordstedt believed that he was doing algal nomenclature a service by having valid nomenclature of four groups of algae begin with the publication of monographs covering those groups, he disserved algal nomenclature by effectively denying the existence of a vast literature that formed the basis of the later starting point monographs. Ironically, the reason that Nordstedt chose these later starting point monographs was that

their authors meticulously and scrupulously scoured the literature and herbaria in an effort to connect names with authentic specimens.

In compiling the Index Nominum Algarum, I found it impractical if not impossible to accommodate the complexities of later starting points. I published a detailed argument (Taxon 7: 181–184. 1958) supporting the elimination of later starting points for all groups of algae, emphasizing that they violated two of the most basic principles of the Code, namely, priority of publication and the type method. I also noted that later starting points create nomenclatural uncertainty in that the choice of starting point depends on taxonomic opinion. Moreover, later starting points create nomenclatural problems by upsetting normal homonymic relationships.

Specialists in the groups concerned have often ignored later starting points or more often attempted to use them but did so incorrectly or inconsistently. It may be inferred that the use of later starting points has not been essential to these specialists. Perhaps the most important consideration is the implication that the Code cannot otherwise competently govern the formulation of a stable nomenclature in certain specific groups. It would be difficult to prove, however, that the taxonomy of desmids, *Oedogoniales*, and *Oscillatoriales* prior to their respective later starting points differs essentially with regard to fluidity of opinion and nomenclatural accommodation from the taxonomy of other algae during the same time frame.

With the foregoing considerations in mind, I proposed the deletion of later starting points for all algae (Proposal 58 of the Montreal Congress, 1959). A dissenting opinion was published by Komárek et al. (Taxon 8: 86–88. 1959) and a rebuttal by me (Taxon 9: 3–7. 1960), but by that time the Committee for Algae had decided to postpone action on the proposal pending further study. As an experiment, I used 1753 as the starting point for valid nomenclature of all blue-green algae in two compilations (Silva & al., Catalog of the benthic marine algae of the Philippines, Smithsonian Contr. Mar. Sci. 27. 1987; Silva & al., Catalogue of the benthic marine algae of the Indian Ocean, Univ. Calif. Publ. Bot. 79. 1996).

In these compilations, post-starting point new names, names of new species, and combinations with post-starting point basionyms all remained unchanged, as expected. Pre-starting point new names, names of new species, and combinations with pre-starting point basionyms, although eliminating the “ex” rubric in their authorship, rarely involved a change of epithet. An example of the effect of eliminating later starting points on the nomenclature of a recently published generic treatment follows.

In a major revision of the blue-green algae, Anagnostidis & Komárek (Arch. Hydrobiol. Suppl. 50–53: 429. 1988) delved into pre-starting point literature to resurrect *Blennothrix* Kützinger (Phycol. Gener. 226. 1843), which was based on the single species *B. vermicularis* Kütz. Twelve binomials were proposed within the resurrected generic name. The authorship of five of these binomials, with post-starting point basionyms, would be unchanged if the starting point for all blue-green algae were to revert to 1753. The authorship of the other seven binomials would change only by the omission of “ex Gom.”, “ex Forti”, and “ex De Toni”. The author

preceding “ex” would remain in parentheses to point the way to the type for *B. brebissonii* (Kütz.) Anagn. & Komárek, *B. breinii* (Näg.) Anagn. & Komárek, *B. lynghyacea* (Kütz.) Anagn. & Komárek, and *B. ravenelii* (Wolle) Anagn. & Komárek. Drouet (Monogr. Acad. Nat. Sci. Philadelphia 15. 1968) lectotypified each of these names with specimens in the herbaria of the pre-starting point author. Anagnostidis & Komárek were inconsistent in citing the authorship of the basionyms for the remaining three binomials. For *B. cantharidosma* they cited “Gom. ex Gom.” rather than “Mont. ex Gom.” even though Drouet lectotypified the name with a specimen in Montagne’s herbarium. For *B. heterotrichum* they cited “Gom. ex Gom.” rather than “Kütz. ex Gom.” even though Drouet lectotypified the name with a specimen in Kützing’s herbarium. Finally, the generic name and the name of its type species are incorrectly accredited by Anagnostidis & Komárek directly to Kütz. rather than to Kütz. ex Anagn. & Komárek.

The validating author of a pre-starting point name is frequently in doubt because validation is often effected unintentionally and unannounced by someone unaware of later starting points. Such cryptic validations are common in the interval between the later starting points and 1910, when later starting points were adopted. Although I am certain that an equally strong case could

be made for abandoning later starting points for desmids and the Oedogoniales, I have not dealt with those groups and therefore limit my proposal to the “Nostocaceae homocysteeae” and “Nostocaceae heterocysteeae”.

It may be mentioned that microbiologists have absconded with blue-green algae, characterizing these organisms as oxygen-evolving photosynthetic prokaryotes (Cyanobacteria) and treating their nomenclature under the bacteriological code, which is based on type cultures. Ecologists and floristic workers, however, necessarily continue to rely on the *ICBN* to govern the nomenclature of traditional field- and herbarium-based taxonomy of blue-green algae. This taxonomy, however, has two poles and a centre. The Geitlerian school gives taxonomic recognition to every morphological and ecological variant (more than 1200 species in 4 orders, 22 families, and 140 genera) whereas the Drouetian school accords marked variability to every species (62 species in 2 orders, 6 families, and 24 genera). In between lies the comprehensive revision by Anagnostidis & Komárek, which involves a reassessment of traditional gross morphological characters coupled with ultrastructural, biochemical, physiological, and ecological characters.

The taxonomy of blue-green algae is sufficiently problematic not to be further burdened with later starting points.

(223–226) Nude combinations revisited

Gea Zijlstra¹ & R. K. Brummitt²

¹ Nationaal Herbarium Nederland, Utrecht University branch, Heidelberglaan 2, 3584 CS Utrecht, Netherlands. g.zijlstra@bio.uu.nl (author for correspondence)

² The Herbarium, Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AE, U.K. r.brummitt@rbgkew.org.uk

Arguments occurred for many years over whether Roxburgh’s *Scaevola taccada* should be regarded as the name of a new species or of a new combination based on *Lobelia taccada* Gaertn. even though Roxburgh made no mention of Gaertner or indicated the possibility of any basionym. The coincidence of the epithet suggested that Roxburgh had merely taken up Gaertner’s epithet, but he failed to make this clear. The case became a classic example of what have become known as ‘nude combinations’. The question of how to treat them has been debated at the last three Congresses. At Berlin in 1987 and Tokyo in 1993 technical objections to the wording proposed led to defeat of the proposals. For St. Louis 1999 the present authors made a renewed proposal (Taxon 47: 913. 1998) in consultation with the then Rapporteur-Général, Werner Greuter, resulting in extensive discussion at the Nomenclature Sessions (see Englera 20: 165–171. 2000). The proposal was accepted, and after extensive rewording by the Editorial Committee in the light of the discussion that had taken place, the present Art. 33.2 was added to the St. Louis Code. *Scaevola taccada* now takes its place there as the only Example under this paragraph.

Even now, however, the wording of the paragraph has been found to be deficient in various ways, and the present Rapporteur-Général, John McNeill, has invited us to look at it yet again. We have identified six problems, as detailed below, and have tried to produce a revised wording which takes them all into account.

(1) For the pre-1953 situation, it is established custom to accept any sort of indirect reference to a basionym or replaced synonym. This is not, however, explicit in Art. 33, and the definition of ‘indirect reference’ in Art. 32.4 only concerns a clear indication

that “a previously and effectively published *description or diagnosis* applies” (italics by us). This is illustrated by the Ex. 4–6, cases in which the validating publication lacked a description or diagnosis. In the Tokyo Code, however, two new examples were added that are not well placed under Art. 32, cases in which in the validating publications, Miller’s *The gardener’s dictionary*, ed. 8 (1768) and Kummer’s *Führer in die Pilzkunde* (1871) respectively, descriptions or diagnoses were present. Therefore we propose a transfer of these examples to Art. 33, to follow a new clause that we are proposing, Art. 33.1bis. This new rule includes two sentences, making explicit that before 1953, an indirect reference to a basionym or replaced synonym is sufficient, and that errors in their citation do not invalidate the new combinations or nomina nova that are based upon them. In this way, we incorporate in Art. 33.1bis the pre-1953 part of Art. 33.4. For a new wording of Art. 33.4, we refer to Challis & Egli (this number, p. 855).

(2) In cases in which a synonym is cited, the present wording allows that the ‘presumed new combination’ may be validly published as a nomen novum. We consider this to be just as undesirable as its acceptance as the name of a new taxon was in the case of *Scaevola taccada* before St. Louis. The case of the lichen name *Schismatomma graphidioides* proposed as an Example below illustrates this point. It was mentioned by G. Paz-Bermúdez, H. Aguiar-Branco & E. Folhadela in Taxon 51: 782 (2002 publ. 2003). Our proposed new wording gets over this problem by simply stipulating “if it would be otherwise validly published”.

(3) The present wording cannot apply to generic names because these are not combinations. Nevertheless, for generic names situations exist that are comparable to that of *Scaevola tac-*