

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 Zijlstra<sup>1</sup> & R. K. Brummitt<sup>2</sup>

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

<sup>2</sup> 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-*

*cada*, cases of so-called ‘nude transfer’. Having Art. 33.2 work here as well would provide a solution for a number of cases that gave rise to a lot of discussion during the last four decades, e.g., for many of the 37 Sprucean 1884 subgenera in *Lejeunea* (Trans. & Proc. Bot. Soc. Edinburgh 15: 63–308). These subgenera were formally raised to generic rank by Schiffner (in Engler & Prantl, Nat. Pflanzenfam. 1(3). 1893). Between 1889 and 1893, many new species were published in these taxa, often with the subgenera clearly treated at generic rank, and without any reference to Spruce. Under Art. 42 of the present Code, many of these have to be treated as monotypic new genera; Bonner & al. (Nova Hedwigia 3. 1961) were the first to realize this situation. In a considerable number of cases, under present-day concepts these genera appear to be taxonomically distinct from the “(Spruce) Schiffn.” genera. In 1961, the concepts of these genera in the sense of Spruce’s subgenera were already firmly established, so with Bonner & al. (l.c.), a problem emerged. For four generic names, conservation of a “(Spruce) Schiffn.” generic name was proposed against the name of such a monotypic new genus (Gradstein & al., Taxon 31: 746–752. 1982); these proposals were accepted. Van Slageren in his dissertation (Meded. Bot. Mus. Herb. Rijks Univ. Utrecht 544: 12, 15. 1985) announced a proposal to conserve a fifth one: *Brachiolejeunea*, but the proposal has never been written. Scott & Zijlstra (in Taxon 35: 885–887. 1986) proposed a more general solution for these cases—it was rejected at the Berlin Congress. Since then, hepaticologists have kept the lid on this can of worms. We have proposed adding “or generic name” twice to cover this.

(4). The word ‘reference’ is ambiguous and confusing. In the context of Art. 33.2, it may be used in a general sense, meaning any indication or mention, or in a restricted sense meaning a bibliographic reference such as “DC., Prodr. 8: 526 (1850)”. When Art. 33.2 says “If ... no reference to a basionym is given”, in which sense should we interpret it? We have always interpreted it as being used here in the general sense, but it is possible to read it as meaning the restricted bibliographic sense. In the latter case, the situation might be that the presumed basionym is cited but the bibliographic reference, i.e., its place of publication, is not. The word ‘reference’ is used in Art. 33.3 in the bibliographic sense. Although the word did appear in our original proposal of what is now Art. 33.2, we now prefer to eliminate the word from this paragraph to avoid ambiguity.

In the first line of Art. 33.6 ‘reference’ is again being used in the general sense, as in Art. 33.5. In the Examples, however, that all are post-1952, it is being used in the bibliographic sense. We think it is not accidental that all examples are from the post-1952 period. For the pre-1953 period, Art. 33.6 does not make any sense: any error in a (maybe incomplete) reference must be treated as an error to be corrected. We think Art. 33.6 should not make people worry about the question of what to do, for example, with a reference in a pre-1953 publication to a place in which the basionym name is present as a nomen nudum which was validly published only later—a situation that is not covered by (a)–(d). Therefore we have a proposal below to make Art. 33.6 more to the point: only for post-1952 names.

(5). The period to which Art. 33.2 should apply is equivocal. It was our understanding in making the proposal that it should apply only to names published before 1953, since quite different and very stringent rules apply after that date (Art. 33.3). However, in the discussion at St. Louis it was suggested that it should apply also after 1 Jan. 1953, and it seems from the printed report that we allowed ourselves to be persuaded of this (Englera 20: 168. 2000).

The discussion had, however, become confused at this point, perhaps because of differing interpretations of the word ‘reference’ as discussed above. The post-1953 situation referred to by Greuter there, where an author failed to cite the basionym *fully and directly*, is quite different from that in previous discussions of nude combinations exemplified by *Scaevola taccada* where there is no indication *at all* of there being any basionym. This post-1953 situation is covered by the present Art. 33.3, not Art. 33.2, and we make a separate proposal below to clarify the point made by Greuter. On reflection, we believe strongly that Art. 33.2 should apply only to cases like *Scaevola taccada* where there is no connection at all to the presumed basionym, beyond the coincidence of the epithet, and so should apply only before 1953 (see also Middleton comment, Englera 20: 170. 2000). We have therefore proposed clarification by inserting the appropriate date at the beginning of the paragraph and proposing deletion of the cross-reference to this paragraph in Art. 33.3.

(6). The cross-reference at the end of Art. 33.2 to 33.6(d) is harmless, but is not at all relevant and could confuse readers. Art. 33.2 deals with cases where there is nothing at all to link a presumed combination with a presumed basionym apart from the coincidence of the epithet. Art. 33.6 deals with a different situation, where a name and a place of publication are given but it is not the correct place of publication. It seems to be a mistake to suggest that these are comparable or connected, and we have omitted the cross-reference in our proposal.

**(223) Insert a new Art. 33.1bis and example as follows:**

“Before 1 January 1953 an indirect reference to a basionym or replaced synonym is sufficient to validate a new combination (or new generic name with a basionym) or a nomen novum. Thus, errors in the citation of the basionym or replaced synonym, or in author citation (Art. 46), do not invalidate such publication.

Editorially revise Art. 33.4 to apply only on or after 1 January 1953.

Move Art. 32, Ex. 7 and Ex. 8 to Art. 33, to follow Art. 33.1bis.

Add an additional example under Art. 33.1bis:

“*Ex. n1*: The name “*Persicaria runcinata* (Hamilt.)” was included in a list of names by Masamune [Bot. Mag. (Tokyo) 51: 234. 1937] with no further information. The name *Polygonum runcinatum* was validated by D. Don (Prodr. Fl. Nepal. 73. 1825) and ascribed there to “Hamilton mss”. The mention by Masamune of “Hamilt.” is regarded as an indirect reference through Buchanan-Hamilton to the name validated by Don, and the combination *Persicaria runcinata* (Buch.-Ham. ex D. Don) Masam. must be accepted as validly published.”

**(224) Reword Art. 33.2 as follows:**

“Before 1 January 1953, if for a presumed new combination, an epithet of a previously validly published name that applies to the same taxon is adopted but that name is neither cited nor indicated in any way, the new combination is validly published if, and only if, it would be otherwise validly published. In these circumstances, the same applies to a new generic name presumed to be based on an earlier validly published infrageneric epithet, or a new infrageneric epithet presumed to be based on an earlier validly published generic name.”

In Art. 33.3, last line, delete “33.2.”.

**(225) Add two new examples under Art. 33.2:**

“*Ex. n2*: *Brachiolejeunea* was published by Stephani & Spruce (Hedwigia 28: 167. 1889) for a taxon that had previously

been described as *Lejeunea* subg. *Brachiolejeunea* Spruce (Trans. & Proc. Bot. Soc. Edinburgh 15: 75, 129. 1884) but without any reference to Spruce's earlier publication. Because Stephani & Spruce provided a description of *Brachiolejeunea plagiochiloides* that under Art. 42 is a descriptio generico-specifica of a monotypic genus the name would be validly published as a new genus. It is, however, to be treated as a new generic name based on Spruce's subgeneric name, despite the lack of reference to Spruce in the protologue of Stephani & Spruce."

"*Ex. n3*: When Sampaio published '*Schismatomma graphidioides* nob.' (Brotéria, Sér. Bot. 15(3): 140. 1 Dec 1917), he cited a synonym (*Platygrapha rimata* Nyl.) and from his taxonomic treatment was evidently intending to publish a new combination based on *Chiodecton graphidioides* Leight., but he made no mention of that name or of Leighton. Because otherwise *Schismatomma graphidioides* would be a valid but illegitimate nomen novum for *Platygrapha rimata* Nyl., it is to be treated as a new combination, *Schismatomma graphidioides* (Leight.) Samp., based on *Chiodecton graphidioides* Leight."

**(226) In Art. 33.6, replace the first line by:**

"On or after 1 January 1953, in any of the following cases, a full and direct reference to a work other than that in",

and delete the final phrase: ", even if published on or after 1 January 1953"

In considering the above proposals we have inevitably needed to compare the provisions of Art. 33.2 with those of 33.3 and 33.6, and we have liaised with K. Challis and U. Eggli who have prepared proposals (this number, pp. 855) to clarify the consequences of omission of only a basionym when the bibliographic reference is correctly given after 1 Jan. 1953. As noted above, this is different from the situation covered in Art. 33.2 and in Art.

33.6(d). There is, however, another similar eventuality which is still not covered in any part of the *Code*. This is that referred to by Greuter in the St. Louis discussion (Englera 20: 168. 2000), where somebody fails to validate an intended new combination or nomen novum under Art. 33.3 (perhaps failing to cite the year or page of a publication) but nonetheless provides the relevant information to validate the name as that of a new taxon, i.e. provides or refers to a Latin description and type. This possibility was already referred to in proposals for the 1969 Seattle Congress in *Regnum Vegetabile* 60: 49 (1969), but no decision on the status of such names has ever been taken. It is possible also that in a taxonomic revision an author might accidentally omit the information required to validate a new combination but cite a taxonomic synonym with all relevant data. In this case the intended new combination might appear to be published as a nomen novum with a type different from that of the intended new combination. It seems that we have three possibilities to resolve the matter. Firstly, we could rule that the name is not validly published since the author failed to satisfy Art. 33.3. Secondly, we could allow that the name is validly published with a type different from that of the intended basionym or replaced synonym, which would seem most unfortunate. Or thirdly we could rule that the intended new combination is validly published, which seems to be contrary to the spirit and intentions of Art. 33.3. We consider the first option to be the best, and make the following proposal.

**(227) In Art. 33 (not in 33.2) insert a sentence:**

"If on or after 1 January 1953 an author avowedly intends to publish a new combination or nomen novum but fails to provide the full information required under Art. 33.3, the name is not validly published even though the author may have at the same time provided other information which would validate the name."

## (228–230) Proposals to amend Article 33

Katherine Challis<sup>1</sup> & Urs Eggli<sup>2</sup>

<sup>1</sup>The Herbarium, Royal Botanic Gardens, Kew, Richmond, Surrey, TW9 3AE, U.K. k.challis@kew.org

<sup>2</sup>Sukkulanten-Sammlung Zürich, Mythenquai 88, CH-8002 Zürich, Switzerland. urs.eggli@gsz.stzh.ch

In our work as indexers of plant names we have to deal with a great number of new combinations and thus with Art. 33. Since publication of the St. Louis *Code* we have noticed a tendency to treat new combinations published without a basionym, but with full basionym reference, as not validly published. In such cases, the authors swiftly re-published the new combinations with both basionym and basionym reference (for example, D. J. Dixon in *Austral. Syst. Bot.* 15: 245. 2002). This did not happen prior to publication of the St. Louis *Code*, implying that lack of a basionym was not seen as a problem if the full basionym reference was cited. This was raised by Gandhi at the St. Louis Congress (Englera, 20: 171. 2000). The problem seems to have arisen from the wording of Art. 33.4 which refers to "omissions", but it is not clear what is omitted, and Art. 33.3 which requires that the "basionym ... or the replaced synonym ... is clearly indicated and a full and direct reference given to its author and place of valid publication". Since Art. 33.3 requires "indication" of the basionym, this can be fulfilled merely by citation of a full reference, rather than citation of the basionym itself. We propose to amend Art. 33.4 to make this difference clear, and to add an example, since none of the current examples deal with omission of a name.

It is not our intention to encourage omission of basionyms, and we feel strongly that they should be included as part of the basionym citation, which is current practice in most cases anyway. Although one can find the basionym if the correct reference is cited, this is time-consuming, especially for botanists working in institutions without extensive libraries. A particular problem, especially with nomina nova, could arise when the page cited has more than one name which could be interpreted as the basionym or replaced synonym. An analysis of names from the *Index Kewensis* on CD-ROM has found approximately 130 new combinations published between 1971 and 1996 without basionym but with full basionym reference. It was not possible to check names published between 1953 and 1970 since the *Index Kewensis* did not record absence of basionym then. More recently, Hammer has deliberately published new combinations without basionyms (New Views Gen. Conophytum. 2002, also titled *Dumpling and his Wife*). It would not promote stability if these names were now treated as not validly published. Therefore, we propose to amend Art. 33.3 so that from a future date citation of both the basionym and basionym reference is a requirement for valid publication of a new combination.

**(228) Add to Art. 33.3:**