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## **(320) Proposal to amend Article 20.2**

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**(320) Amend Art. 20.2 as follows (new text in bold):**

“20.2. The name of a genus may not coincide with a Latin technical term in use in morphology at the time of publication unless it

was published before 1 January 1912 **or after 31 December 2011** and was accompanied by a species name published in accordance with the binary system of Linnaeus.”

Article 20.2 of the *ICN (Melbourne Code)*; McNeill & al. in *Regnum Veg.* 154. 2012) rules that certain technical terms are not to be used as generic names, specifically terms that “coincide with a Latin technical term in use in morphology at the time of publication”. This provision was first proposed by Ross (in *Taxon* 7: 260. 1958) and was recommended for acceptance by the Rapporteur in the synopsis of proposals for the Montreal Congress (Lanjouw in *Regnum Veg.* 14: 31. 1959). It was subsequently introduced into the *Montreal Code* (Lanjouw & al. in *Regnum Veg.* 23: 26. 1961) as an amendment to Art. 20, with the following wording:

“The name of a genus may not coincide with a technical term currently used in morphology unless it was published before 1 Jan. 1912 and was accompanied, when originally published, by a specific name published in accordance with the binary method of Linnaeus.”

The specific provision later became Art. 20.2 in the *Leningrad Code* (Stafleu & al. in *Regnum Veg.* 97: 19. 1978) and was not substantially altered from its original form in subsequent versions of the *Code*, except for adding the word “Latin” to “technical term” and changing “currently used” into “in use in morphology at the time of publication”.

Unfortunately, neither the original proposal nor the synopsis provide any specific rationale for introducing or accepting this amendment to the *Montreal Code*. What is more, the Example originally added to the *Code*:

“The generic name *Radicula* Hill (Brit. Herbal 264. 1756) coincides with the technical term *radicula* (radicle) and, when originally published, was not accompanied by a specific name in accordance with the Linnaean method. The name must be attributed to Moench (Meth. 262. 1794), who first combined it with specific epithets, but at that time he included in the genus the type-species of the generic name *Rorippa* Scop. (Fl. Carn. 520. 1760). *Radicula* Moench must therefore be rejected in favour of *Rorippa*.”

This Example was published as an incomplete phrase “The generic name *Radicula* ...” [sic] in both the original proposal and in the synopsis, and it is unclear how the complete Example was coined. This makes it difficult to determine the reason why this amendment was added to the *Code* and what context justifies its existence; we ourselves can not see any good reason for its inclusion. Perhaps its intention was to avoid possible confusion between intended publication of generic names and mistaking technical terms used in passing in Latin descriptions as inadvertently published generic names. This assumption is supported by the notion that technical terms as generic names were allowed until 31 December 1911 if associated with a specific epithet, thus making the intention as generic name clear.

In the course of a discussion about the potential application of Art. 20.2 to two recently published generic names in lichen fungi, viz. *Caeruleum* Knudsen & Arcadia (in *Arcadia & Knudsen*, *Opusc. Philolich.* 11: 19–25. 2012) and *Carbonicola* Bendiksby & Timdal (in *Taxon* 62: 940–956. 2013), various shortcomings of this Article became obvious. These shortcomings, together with our view that the Article does not serve, and never has served, a useful purpose, led us to the conclusion that the Article should cease to operate.

The principal sentence of Art. 20.2, “The name of a genus may not coincide with a Latin technical term in use in morphology at the time of publication [...]” raises various problems that make interpretation and application of this rule difficult, and perhaps impossible. The term “coincide with” is imprecise, and it is unclear whether it means “identical with” or, for example, “coincides in spelling with”. For instance, the Latin word *Caeruleum* exists as a noun and also as (the neuter gender of) an adjective. The generic name *Caeruleum* is

the noun, as indicated in the protologue, but it coincides in spelling, though not in meaning, with the adjective in neuter form *caeruleum*. If the latter is considered a “Latin technical term in use in morphology”, and “coincides with” means “has the same spelling as”, the generic name *Caeruleum* would not be validly published. However, if “coincide with” means “identical with”, that would not be the case.

The wording “Latin technical term” might also cause confusion. It is unclear whether “Latin” refers to words that are unambiguously Latin, or whether it includes purposely latinized words taken from other languages, such as Greek. Many words in a language are at first regarded as foreign loanwords (e.g., the word *schadenfreude* in contemporary English), but they may gradually become assimilated (e.g., the word *person* in contemporary English, originally a loanword from French, which got it from Latin, which got it from Etruscan). Particularly relevant for our purposes are the many words used in Latin borrowed from Greek. For instance, could the fictive generic name “Plectenchyma” be validly published? It is of Greek origin, but it has been used in both Latin and English descriptions. One could argue that this problem is automatically remedied by assuming that any term used in a Latin description or a scientific text entirely in Latin is considered Latin, regardless of its origin. However, the above example of plectenchyma, a word that can be used in either a Latin or an English context, could then by extension mean that even a Latin technical term was allowed as a generic name if the term has been absorbed into English (or another modern, non-Latin) language. Furthermore, the word “technical” is also unclear, as a Latin description or text is a mixture of technical and non-technical nouns and adjectives and non-technical fill terms and the difference is not always clear. For instance, the Latin word “*excelsum*” for height could perhaps be considered a technical term if used in a description, but it has a much broader context outside botany or mycology or science in general. Is this then to be considered a technical term, or could the fictive generic name “*Excelsum*” be validly published?

Further, substantial problems are caused by the phrase “in use in morphology at the time of publication”. Does “in use” include a single use in a publication in a little-known journal of local or regional distribution? Or does it have to be “established” and what would “established” mean? A second use by subsequent, different authors? What is the time span defined by “at the time”? In the same year, in the same decade? For instance, if a technical term is replaced by another term, which is used from that point onward, does the previous term become “available” for publication as a generic name? Does the term “morphology” refer to all morphology, including zoology, bacteriology and virology, or only morphology of organisms governed by the *Code* (which seems to be assumed but is not specifically stated)? What is the scope of the term “morphology”? The general consensus is that it covers the form and structure of organisms, but some authors restrict the term to outward appearance whereas others also include internal morphology, i.e., anatomy. Thus, depending on its definition, anatomical technical terms would either be allowed or not as generic names. Colours are part of morphological and anatomical descriptions, but are they to be considered morphological and technical terms? Some specific colours used from a patented colour scheme might perhaps be considered technical, but what about other colours? Valid publication of the name *Caeruleum* Arcadia, for instance, depends in part on whether the scope of “morphology” is considered to include colours.

Finally, does this Article make sense if commonly used elements of descriptions are excluded? For instance, if the term morphology is narrowly defined, so as to exclude attributes such as chemistry, ecology or geography, the (presumed) original purpose of Art. 20.2 would

be defied, since such elements may contain very specific, technical terms. Is the word “Norsticticum” allowed as a generic name, because chemistry (norstictic acid is a secondary compound frequently found in lichen fungi) is not morphology? What about the published generic name *Carbonicola*, which coincides with a technical term used in substrate ecology but not in morphology (growing on burnt wood)? In other words, if fictive generic names such as “Flavum”, “Saxicola” or “Phaeophytinum” or published names such as *Caeruleum*, *Carbonicola*, and *Chlorophyllum* are allowed, what reason is there to deny the use of a set of technical terms used in a narrowly defined scope of (botanical and mycological) morphology, and more so if such terms we allowed until 1912?

Because Art. 20.2 is both unnecessary and subject to a broad range of interpretations, we consider that it should never have been part of the *Code*. Unfortunately, removing it entirely is impractical, as some names that have long been considered not validly published would become validly published, which would lead to instability. We propose a retroactive end date in line with the end date of the requirement for a Latin description or diagnosis (Art. 39), since this would

remove any ambiguity as to the published names discussed here, but as a minimum, we consider that it should cease to be applicable from the date of the next Congress. We are concerned that the alternative solution, namely a broad interpretation of the term morphology or, by extension, the application of Art. 20.2 to any Latin technical term or technical term used in Latin descriptions, including anatomy, chemistry, ecology, and geography, will render not validly published certain names published in recent decades that have been regarded as validly published. In addition, it would make the application of the *Code* absolutely impractical, since there would have to be a continuous screening of technical terms to be included in the scope of Art. 20.2. Switching off the Article retroactively is the most beneficial solution, with the least amount of nomenclatural disruption. The proposed date is in line with abandoning Latin descriptions and hence the principle source of confusion, but also with the two names discussed here in lichen fungi, published in 2012 and 2013, respectively. We are unaware of any similar cases in botanical and mycological nomenclature published after the first inclusion of this provision into the *Montreal Code* in 1961.