

Illustrating the Holy Cow

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A description or diagnosis in Latin (or reference to one previously published) has been an obligatory condition for the valid publication of a name of a new plant taxon (except those of algae or fossils) since 1935 (Art. 36.1 of the ICBN) and of non-fossil algae published since 1958 (Art. 36.2). It is also one of the options—English being an alternative—for publication of names of plant fossils since 1996 (Art. 36.3). Prior to that, new plant fossil taxa could be described in any language. Besides the diagnosis or description, to be valid, publication of new fossil taxa and new non-fossil algal taxa must also be accompanied by an illustration or figure since 1912 (Art. 38.1) and 1958 (Art. 39.1), respectively.

The discussion about the obligation to use Latin to validate the name of a new taxon is an old one and part of the 25 years of nomenclatural impasse in botany, until the requirement was finally implemented in the Cambridge Rules (Briquet, 1935; see Nicolson, 1991). McNeill & al. (1986) returned to the subject, proposing English as an alternative to Latin, but the proposal was vigorously rejected (Greuter & al., 1989: 96–97; McNeill, 1990; Voss, 1990). Since then, opinions have apparently been divided between the maintenance of Latin as the obligatory language (Stearn, 1987; Barneby, 1990; Kabuye, 1990; Voss, 1990; Filgueiras, 1997) and the possibility of English as an alternative (Kostermans, 1990; McNeill, 1990, 1997; Traverse, 1990; Chaudhri, 1991, 1992) or a substitute (Craven, 1997) in the descriptions of new taxa. Bayer (1990) and Steyskal (1990) considered the age of Latin diagnoses as already past but did not associate this with the substitution of English, while Jørgensen (1998) and Llamas (1999) supported the use of Latin, but they did not discard the possibility of a multi-lingual system.

Any proposal to modify a basic rule of the system of botanical nomenclature, such as the obligation of Latin descriptions in the publication of new taxa, normally suffers severe criticism. In part, these criticisms contribute to a refining of the original proposals, assuring the implementation of more efficient rules to help the progress of taxonomy. Therefore, I will re-evaluate the Latin description (or diagnosis) as an essential condition in the publication of valid names and then suggest the articles ini-

tially cited (Art. 36.1, 36.2, 36.3, 38.1 & 39.1) be unified, which certainly will contribute to the development of botanical taxonomy, without incurring unnecessary linguistic disputes.

My proposal (Rapini, 2002) is basically to substitute the obligation to use a Latin description (or diagnosis) with that of a diagnostic illustration. It would mean that, for a name to be validly published, it would be necessary that the description of the taxon, regardless of the language chosen (including Latin), would have to be accompanied by an illustration (or reference to a previously published illustration) that would permit the identification of that taxon. A diagnosis (Art. 32.2) or abbreviated description in a language distinct from that utilised in the description (preferably one of English, or the language most used in the area in which the plant occurs, or even Latin) would, however, be recommended.

WHY LATIN?

The principal reasons for maintaining Art. 36 of the ICBN and, hence, for the opposition to the use of English as an alternative language to Latin in the diagnosis (or description) required for the valid publication of a new taxon were initially put forth by the same authors of the proposal to modify that article (McNeill & al., 1986). These reasons were: (1) resistance to the domination of the English language, (2) elimination of a diagnostic criterion to evaluate objectively the intention of the author to publish a new name, (3) abandonment of the diagnosis, (4) the necessity of a knowledge of Latin in order to understand the ancient literature, and (5) the neutrality of Latin.

Latin is a “dead” language (Voss, 1990) and “frozen” (Filgueiras, 1997). It is not subject to modification as modern languages are, offering stability to taxonomic work. Latin is also abbreviated and precise (Stearn, 1987; Barneby, 1990; Filgueiras, 1997; Jørgensen, 1998), at least in relation to modern languages, such as English. Because it does not pertain to any modern functioning culture, it is considered the property of humanity (Filgueiras, 1997) and a symbol of international diplo-

macy between botanists (Stearn, 1987). The obligatory Latin diagnosis (or description) for the publication of a valid name is a nomenclatural rule that prevents the original description of a new taxon being in any language, avoiding the chaotic situations that would result from the liberty in the choice of language (Traverse, 1990). At the same time, it offers equivalent disadvantages for all botanists independent of language (Filgueiras, 1997), easing cultural rivalries.

WHY NOT LATIN?

The principal argument for abandoning the requirement of a Latin diagnosis (or description) is the lack of familiarity of modern botanists with Latin and the consequences of this in the practice of taxonomy. The presence of Latin in botany resulted from its special position as the language of choice among the intellectual elite in mediaeval European culture. Despite the historic importance of Latin, the teaching of it has been in decline for some time and fewer and fewer people are fluent or competent in its use (McNeill & al., 1986; Stearn, 1987; Kostermans, 1990). For some (e.g., Bayer, 1990) it is difficult to believe that Latin is really considered a superior language for science, and its continued maintenance could only be justified as a form of erudite display.

To the contrary of what is usually suggested by those who defend the use of Latin (e.g., Filgueiras, 1997), the obligation of a Latin diagnosis (or description) obviously does not bring the same disadvantages for every taxonomist (see e.g., Craven 1997). The use of Latin certainly prejudices taxonomic work in countries whose native languages are not derived from or influenced by Latin (Chaudhri, 1991; McNeill, 1997). The advantages of a stable language, precise and synthetic, are also not justified. Much relevant taxonomic information necessary to the recognition of a new taxon is not included in the diagnosis (Kostermans, 1990; McNeill, 1990), remaining obscure to even those who are fluent in Latin. Botanical Latin is also artificial (Stearn, 1998), and the actual diagnoses are frequently so abbreviated and grammatically incorrect that it leaves them lacking in significance (Barneby, 1990).

WHY AN ILLUSTRATION?

The illustration is an important component of botanical nomenclature because: (1) provision of an illustration is a necessary condition for valid publication of names of new taxa of fossils and algae (Art. 38.1 & 39.1, respectively); (2) an illustration is sufficient (with detail) for validation of names of plants published before 1908

(Art. 42.3 & 44.1); (3) an illustration can be the type of non-fossil plants (Art. 8.1, 9.1, 9.2, 9.6 & 9.7); and (4) it is the type reference for fossil plants (Art. 38.2). Besides this, an illustration is easily disseminated; it can be accessed by anyone and in various places simultaneously. Figures (drawings or photos of the type) can be chosen as lectotypes of names, the original material of which has been by chance lost or destroyed, offering more security and precision in taxonomic work. Thus, mandatory provision of figures would avoid the need to designate neotypes (Art. 9.6) and diminish the necessity of epitypes (Art. 9.7) for names published henceforth.

The liberty of language choice would imply the disuse of diagnoses, which are clearly appendages inherited from an epoch when the nomenclature was still dissociated from the actual system based on type material (Jørgensen, 1998). Initially, the taxonomist had in the description (or diagnosis) the only manner in which to recognise a taxon and associate it with the published name. Nowadays, this situation no longer happens; the accurate recognition of the name of a taxon depends basically on the examination of the type material (which may even be an illustration). In zoology and bacteriology, validating descriptions can be in any language, and, contrary to what seems to have happened in palaeobotany (cf. Traverse, 1990), it has not generated serious problems in those disciplines (cf. Bayer, 1990).

Since the description (or diagnosis) in Latin is a criterion by which to identify clearly the intention of the author to publish a new taxon, to abandon this requirement could generate “accidental publications”; i.e., names could become valid without the author’s intention (McNeill & al., 1986; Barneby, 1990; McNeill, 1990; Voss, 1990). However, the explicit indication of the type of the name using the word “*typus*” or equivalent (Art. 37.5) and the explicit acceptance of the name by the author (Art. 45.1) by expressions such as “*sp. nov.*” or equivalent, which is already normal practice and might become a requirement for valid publication of new names, would impede any ambiguity in this sense.

This modification (replacing the Latin requirement by that of an illustration) would not make Latin unnecessary in taxonomy; taxonomists would remain tied to older literature, which is commonly in Latin. Nevertheless, there exists a substantial difference between, on one hand, the reading and on the other hand, the writing of a description in a language that the taxonomist has not mastered (McNeill & al., 1986; McNeill, 1990, 1997). Botanists certainly will continue to utilise part of their time to learn Latin, but to consider this fact as a reason to maintain Latin as a condition for publication of a new taxon is a fallacy. The necessity to dedicate efforts to read Latin in older literature does not justify dedicating more efforts to learn how to write in Latin or to read

recent diagnoses in this language.

In accord with this general proposal (Rapini, 2002), there would be no reason for cultural rivalries, since an illustration is already a “universal” language, and contrary to Latin, would offer equivalent advantages (instead of uneven disadvantages) to all botanists. If “a picture is worth a thousand words”, then what is that to a dozen in Latin? The proposal could also unify the three parts of Art. 36, making all plants (including fossils and algae) subject to the same condition for validating names of new taxa: the presentation of a diagnostic illustration associated with the author’s intention in validly publishing the name of the taxon in the respective locality.

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