

(383–384) Proposals to clarify the status of “accidental binomials” in works in which the Linnaean system of binary nomenclature is not employed

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Prior to the Tokyo Congress of 1993, the *Code* included a provision that names of species were not validly published in a work in which the Linnaean system of binary nomenclature for species was not consistently employed (Art. 23.6(c) of the Berlin *Code* – Greuter & al. in *Regnum Veg.* 118. 1988). However, there are several important works (e.g., Aublet, *Hist. Pl. Guyane. 1775* and Forsskål, *Fl. Aegypt.-Arab. 1775*) with numerous species names generally accepted as validly published but in which there is at least some inconsistency in the use of binary nomenclature. A Special Committee was therefore set up at the Berlin Congress in 1987 to address this issue (McNeill in *Taxon* 36: 858–868. 1987). This Committee in its report to the Tokyo Congress (Friis in *Taxon* 41: 343–350. 1992) set out that “the purpose of a change in Art. 23 must be to maintain validity of the species names traditionally accepted from works like those of Aublet and Forsskål, while names from works traditionally rejected have to be excluded from the possibility of being taken up.” The Committee proposed to achieve this goal by abandoning the criterion of consistent employment of binary nomenclature and adopting a number of provisions of which the two most relevant were (1) to preclude a generic name followed by a phrase name (*nomen specificum legitimum*) from being a validly published species name (Proposal 66) and (2) to establish an (expandable) list of works that, due to their inconsistent or ambiguous, but prevailing, use of non-binary nomenclature, were traditionally dismissed as sources of species names (Proposal 71).

However, in its Proposal 66 seeking to preclude phrase-names from being treated as validly published, the Special Committee considered only one type of phrase name (“one or more descriptive substantives and associated adjectives in the ablative”), while stating, in an associated Example: the “works of Miller (*Gard. Dict. Abr. ed. 4. 1754*), Gérard (*Fl. Gallo-Prov. 1761*) and Kramer (*Elench. Veg. 1756*) are examples of works in which names are such descriptive designations and therefore to be rejected”. In fact, these works, which lack any typographical or other distinction between potential “nomina trivialia” (the then brand new Linnaean concept of what are specific

epithets today) and the traditional “nomina specifica legitima” (the diagnostic element defining species within their genera), include many generic attributes that are not phrase names as defined above, not being descriptive and/or not in the ablative case. Moreover, at least in Miller’s book, many of these attributes comprise a single word, often an adjective in the nominative case, thus forming an apparent binomial with the generic name. The Special Committee apparently failed to note that fact, else they would not have dissociated Miller’s book from, e.g., Hill’s *The useful family herbal* (1754) and *The British herbal* (1756), in which the situation is exactly similar and which were formally proposed for rejection (their Proposal 71).

Proposal 66 became Art. 23 Prop. C in the Synopsis of Proposals to the Nomenclature Section of the Tokyo Congress (Greuter & McNeill in *Taxon* 42: 191–271. 1993). In their Comments, the Rapporteurs noted that some of the Examples, including that in Art. 23 Prop. C quoted above, should be Voted Examples. The proceedings of the Nomenclature Section meeting (Greuter & al. in *Englera* 14: 134. 1994) report that Art. 23 Prop. C (along with Prop. A, B, and D) were accepted without debate. Subsequently, the Section decided not to list in Voted Examples, in the body of the *Code*, the works to be rejected, but to incorporate them in the new Appendix V of suppressed works.

The Editorial Committee for the *Tokyo Code* (Greuter & al. in *Regnum Veg.* 131. 1994) initially marked the works listed in the Proposal 66 Example for transfer to App. V, along with the other Voted Examples, thus eliminating them from the body of the *Code*; then, noting that, as the Example was worded, there was no need to suppress those three works, they dropped them from the App. V draft, but unfortunately forgot to reinstate them in their former place. The decision of the Tokyo Editorial Committee was presumably correct in the case of the Kramer work (at least, we could not spot any new “accidental binomials” in it on a cursory check), almost so in the case of the Gérard work (we only found two cases in it, *Scolymus annuus* and *S. perennis*), but definitely unfortunate in the case of the Miller

work, as almost 10 % of the designations used in it resemble Linnaean binomials (see below).

Recently, Wiersema & Gandhi (in *Taxon* 65: 638–639. 2016) have proposed to remedy what they consider a “failure of the Editorial Committee” and add all three named works to what is now App. VI of the *Code*. We do not consider this to be the best possible solution. In the case of Gérard and Kramer, adding the publications to the Appendix of Suppressed Works is probably an overkill (both Gérard “binomials” mentioned above are junior to names published by Linnaeus in 1753) if not unjustified (as in the case of Kramer). Conversely, there is the broader issue of post-1753 publications in which the Linnaean binominal system of nomenclature was clearly not accepted, but in which the occasional “two-word polynomial” or “accidental binomial” is published. It is more than likely that many such cases exist unnoticed in early botanical works that no one has yet dreamt of as potential nomenclatural sources. We therefore prefer a general solution, taking care of known threats (such as Miller’s) and any that may surface in the future. This is the intent of the proposals below.

Despite the limiting wording of the current Art. 23.6(a), some take the view that no species names are validly published in a work such as that of Miller in 1754, in which the Linnaean system of binary nomenclature is evidently not adopted. This view is based on Art. 23.6(b), which precludes as validly published names “Other designations of species consisting of a generic name followed by one or more words not intended as a specific epithet”; the conclusion being that all Miller’s species designations consist of a generic name followed by a *nomen specificum legitimum* and so none, not even those comprising the generic name and one word not in the ablative, was intended by Miller as a Linnaean specific epithet. However, none of the Examples to Art. 23.6(b) addresses this situation, dealing rather with designations not intended as any sort of name or epithet, and, consequently, others have regarded such “accidental binomials”, i.e., those with phrase names reduced to a single word, as validly published, as an unintended consequence of the changes accepted at the Tokyo Congress.

In fact, Miller restricted his “polynomial” species designations to an apparent binomial quite frequently – for over 400 out of a total of several thousand species included in the abridgment of *The gardeners dictionary*. Many of his apparent epithets were one-word phrase names taken from pre-Linnaean authors, and although many have since been unquestionably used in validly published binomials, either by Miller himself when he did adopt the Linnaean binomial system (Miller, *Gard. Dict.*, ed. 8. 1768) or by other authors, the acceptance of these “accidental binomials” from works that did not use Linnaean binominal nomenclature would at the very least involve unnecessary and undesirable changes in authorship. For example *Leucanthemum vulgare* Lam. would become “*Leucanthemum vulgare* Mill.”, *Oenanthe aquatica* (L.) Poir. “*Oenanthe aquatica* (L.) Mill.”, and *Sanguisorba minor* Scop. “*Sanguisorba minor* Mill.”

The question may be asked whether, twenty-four years after the Tokyo Congress, some disadvantageous nomenclatural change might arise by partly reversing, in the mind of some, a decision taken there. As a consequence of the proposal to conserve *Physalis* with a conserved type (Whitson in *Taxon* 60: 608–609. 2011), Miller’s “*Alkekengi officinarum*” is now listed in IPNI (<http://www.ipni.org>) as a validly published name – but very few of Miller’s other “accidental binomials” are similarly listed, e.g., not those mentioned above. Bräutigam &

Greuter (in *Willdenowia* 37: 123–137. 2007) attributed *Pilosella officinarum* (= *Hieracium pilosella* L.) to Vaillant (in *Königl. Akad. Wiss. Paris Anat. Abh.* 5: 703. 1754) rather than to F.W. Schultz & Sch. Bip. (in *Flora* 45: 421, 422. 1862), but it has since been recommended that all Steinwehr’s translations in *Königl. Akad. Wiss. Paris Phys. Abh.* 5–9. 1754–1760 be added to the list of Suppressed Works (Appelquist in *Taxon* 63: 1358–1371. 2014). In general, it seems that most people have either not taken note of the change that occurred at the Tokyo Congress, or have interpreted Art. 23.6(b) as still excluding these “accidental binomials” from being validly published.

The following proposals are designed to clarify the rules in this regard and to make explicit the rejection of all “accidental binomials” intended as phrase names. It does so, not by reverting to the pre-Tokyo rule that required consistent application of the Linnaean system of binomial nomenclature, but to a variant of it: that if phrase-names of two or more words predominate, any that comprise just a single word are also considered to be phrase-names.

(383) Amend Art. 23.6(a) to read as follows (new text in bold, deleted text in strikethrough) and add an Example:

“23.6. The following designations are not to be regarded as species names:

(a) ~~Descriptive designations~~ **Designations** consisting of a generic name followed by a phrase name (Linnaean “*nomen specificum legitimum*”) **commonly** of one or more ~~descriptive~~ nouns and associated adjectives in the ablative, **but also including any single-word phrase-names in works in which phrase-names of two or more words predominate.**”

“*Ex. 14bis.* In Miller, *The gardeners dictionary ... abridged*, ed. 4. (1754), phrase-names of two or more words largely predominate over those that consist of a single word and are thereby similar to Linnaean *nomina trivialia* but are not distinguished typographically or in any other way from other phrase-names. Therefore, designations in that work such as “*Alkekengi officinarum*”, “*Leucanthemum vulgare*”, “*Oenanthe aquatica*”, and “*Sanguisorba minor*” are not validly published names.”

(384) If Prop. (383) is accepted, amend Art. 23.1 as follows (new text in bold, deleted text in strikethrough):

“23.1. The name of a species is a binary combination consisting of the name of the genus followed by a single specific epithet in the form of an adjective, a noun in the genitive, or a word in apposition; ~~or several words; but not a phrase name of one or more descriptive nouns and associated adjectives in the ablative (see Art. 23.6(a)), nor any of certain other irregularly formed designations (see also Art. 23.6(b–d)).~~ If an epithet consists of two or more words, these are to be united or hyphenated. An epithet not so joined when originally published is not to be rejected but, when used, is to be united or hyphenated, as specified in Art. 60.9.”

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