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Published by: International Association for Plant Taxonomy (IAPT)
Stable URL: http://www.jstor.org/stable/1216047
Accessed: 05/04/2014 09:28

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WHAT IS A NEW TAXON?

A. A. Bullock *

Summary

A ‘new taxon’ is not, or only rarely, a newly evolved taxon whilst a new species is new only in a nomenclatural sense or, as it was phrased in earlier generations “new to science”. The indication “nom. nov.” must be regarded as a technical term indicating a new name replacing an old one which is illegitimate under the Code.

A number of questions have arisen in relation to the nomenclatural definition of the term “new species”, particularly in regard to the application of Art. 42 and to the treatment of named infraspecific taxa on promotion to the rank of species. The situation is complicated by the fact that a nomenclaturally new species is not by any means always a new (i.e. hitherto undescribed) taxon.

The writer (Bullock, 1962) has expressed the view that certain binomials published by Dennstedt (1818) were, by reason of references back to descriptions by Rheede (1678–1703), to be regarded as validly published and that some of them, being quoted by Dennstedt as representing monotypic new genera based upon new species, were acceptable under Art. 42, on account of the acceptance in Art. 41 of reference to a description as equivalent to a new description for the purposes of valid publication. It was pointed out that the case is explicitly covered by the phrase (Art. 42) “provision of a combined generic and specific description”, compared with (Art. 41) “accompanied by a description . . .”. It was assumed (and it is still maintained) that the word “provision” covers both “accompanied by” and “reference (direct or indirect)”. Certainly, had Dennstedt merely copied Rheede’s descriptions, they would have been acceptable as validating descriptions for specific names in “old genera” and equally acceptable as generic-specific descriptions of monotypic new genera based upon new species. In those instances where Dennstedt included two or more new (or old) species in the same new genus, neither the generic name nor the names of the new species were validly published, since there was no provision of a separate generic description (Art. 34, 43).

This and other similar cases of post-Linnean authors publishing names by reference to pre-Linnean effectively published (Art. 29, 30) descriptions give perhaps the simplest examples of old taxa becoming nomenclaturally new species and new genera; the only question remaining, — and there is no clue to its answer in the Code, — is whether “new genus” and “new species” as used in Art. 42 are intended to mean nomenclaturally new or merely new in the sense that the taxa concerned had not been previously recognized or described. In the context of the Code it is essential that terms of a technical nature should have but one meaning, whatever may be the meaning or meanings attached to them in less restricted fields.

A somewhat different situation arises when the same taxon is treated independently by different (post-Linnean) authors. The case of the conserved generic name Pterolobium has been discussed at length and with great accuracy by Brummitt (1968). Pterolobium lacerans R.Br. (1818) appeared in a list of names of plants collected by Salt without any description but with a reference to “Kantuffa Bruce” (1790), which turns out to be a description of a species with the vernacular (Ethiopian) name “kantuffa”. At first sight this seems to be exactly comparable to the Dennstedt case

mentioned above, of an old taxon becoming a new monotypic genus based upon a new species, the name being validated by reference to an effectively published description. Unfortunately Bruce’s kantuffa is also the basis of *Cantuffa exosa* J. F. Gmelin (1790), a fact which may have escaped Brown’s notice and was certainly not mentioned by him. Whether or not it was validly published, *Pterolobium* R.Br. and *P. lacerans* R.Br. are certainly illegitimate (Art. 63) since the genus included the type of *Cantuffa* J. F. Gmelin and the species included the type of *C. exosa* J. F. Gmelin, though Brown’s generic name was certainly inspired by the fruiting material collected by Salt.

If Brown’s reference to Bruce can be interpreted as an indirect reference to Gmelin, — and it seems incredible that he was unacquainted with Gmelin’s work, — then *Pterolobium lacerans* should be labelled “nomen superfluum”. If, however, one relies quite literally on the facts of his publication then *Pterolobium lacerans* may be labelled “genus et species nova”. In both events the name is validly published and in both it is illegitimate. Taxonomically the species was first described and named by Forsskål (1775) as *Mimosastellata* but this is irrelevant from the point of view of this argument. Brenan (1954a), the Committee for Spermatophyta (see Rickett, 1958) and Rickett and Stafleu (1959) regarded *Pterolobium lacerans* R.Br. as a *nomen nudum*, a view with which the present writer cannot agree.

There is a distinct difference, often overlooked, between a taxon whose name may properly bear the label “species nova” and a new taxon. Ross (1958) very accurately drew sharp distinctions between the different circumstances in which a taxon may require a new name under the Code and at the same time defined “new taxon” as a taxon which has not previously received a validly published name in any rank. It will be clear from the foregoing argument that the writer is not in complete agreement, for although (for example) *Cantuffa exosa* Gmelin (1791) was the first validly published name for Bruce’s plant and could then be properly labelled “gen. et sp. nova”, it was scarcely a new taxon since it had been described a year earlier by Bruce. The fact that the still earlier name *Mimosastellata* Forssk. is now known (see Brenan 1954b, 1967) to apply to the same taxon is a further complication and a new taxon must be defined, not in terms of names which may have been applied to it, but as a taxon which is not known to have been the subject of an earlier effectively published description. Ross (1958) also declared that “a new name is the name of a new taxon unless its type is the type of a previously and validly published name which it is published to replace.” This leaves out of account descriptions which are not accompanied by names which are validly published under the Code.

Ross’s use of the term “new name” is more extensive in meaning than the “*nom. nov.*” of taxonomic practice, where it is limited to indicate a new name replacing an old one which is illegitimate under the Code, without change in rank of the taxon concerned. It is obvious, however, that “*nom. nov.*” must be regarded as a technical term with a limited meaning that has little similarity to the more general meaning of “new name”. It is suggested that in nomenclatural discussion the term “new name (*nom. nov.*)” should be so limited in meaning in order to avoid confusion with “new combination (*comb. nov.*)”, or with names necessarily coined when the rank of a taxon is changed on taxonomic grounds, or when a new or old taxon is first provided with a validly published name.

The term “new combination (*comb. nov.*)” has a similarly limited application to names formed as a result of the simple transfer of a taxon from one position to another without change of rank.

The position when change in rank is involved, particularly in regard to the appellation to be attached to the name in the new rank, has never been the subject of either regulation or recommendation under the Code and taxonomists adopt different practices. The status of such names in regard to priority, authorship and typification has
already (Bullock 1958, 1964) been the subject of proposals which were rejected at the Congresses of Montreal (1959) and Edinburgh (1964) and their status relative to the taxa to which they are applied will now be examined. A taxon, described as a population referable to a species, is placed in the rank of subspecies. A subsequent author, on re-examination of the same taxon, concludes that it is so dissociated from the species to which it was referred as to represent a distinct species. As such, it is correctly regarded as a new species (sp. nov.). The later author now may exercise certain options in regard to the name he will adopt for the new species. First, he may (and this is a common procedure), if there is no obstacle, adopt the epithet coined by the original describer of the taxon in the lower rank and make a specific name typified by the type of the earlier subspecific name. Second, he may adopt the same epithet and cite a different type. Third, he may coin a new epithet and cite as type the type of the earlier subspecific name. Fourth, he may coin a new epithet and cite a new type. In the first and third cases reference to the description of the taxon in the lower rank is doubtfully acceptable as sufficient to validate the specific name, but in cases two and four, when a new type is cited, a new description also will be required. In any event, however, the specific name will be correctly labelled “sp. nov.” and not either “comb. nov.”, “nom. nov.” or “stat. nov.” It would appear that the last of these can be correctly used only following names applied to taxa thought to be hybrids and now declared to be non-hybrids, or vice versa, since the word “status” is used only in this context in the Code (Art. 50).

It will be clear that the word “new” in all the contexts mentioned above has a special meaning. A new taxon is not, or only rarely, a newly evolved taxon whilst a new species is new only in a nomenclatural sense or, as it was phrased in earlier generations “new to science”. For simplicity the above discussion has been limited to species, but similar considerations are equally applicable at all levels in the taxonomic hierarchy.

References

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