NOMENCLATURE AT SEATTLE

F. A. Stafileo

"... Est on bien sûr que les changements qu'on y apportera n'altereront pas, sans grand profit, l'unité et la logique de ce texte qui est maintenant notre guide"? Bureau, at Paris (1900) on the Candollean Code.

Summary

A review of the main results of the discussions on botanical nomenclature at the Eleventh International Botanical Congress at Seattle, 22–24 August 1969. The International Code of Botanical Nomenclature remains practically unchanged. Minor amendments include a restriction of the phenomenon of 'automatically created autonyms' (to be called autonyms), a further precision of the rules concerning names of hybrids, and a loosening of the rule governing superfluous names.

The number of proposals submitted to the Nomenclature Section at Seattle was significantly lower than at any of the previous post-war congresses. Whether the total of 226 (against 550 at Stockholm and 300–400 at Edinburgh, Montreal and Paris) sets a new pattern is difficult to say. The trend, evident since Montreal, to concentrate on details rather than on basic changes, is clear; the nomenclature section of the Congresses finds itself discussing refinements rather than major reforms. Our Code seems to have found its shape. Some nomenclaturists still maintain that the order and organization are illogical, and that there is too much patchwork; however, most members of the section at Seattle seemed determined to change as little as possible.

The now familiar total of seven sessions was still necessary to deal with this greatly diminished number of proposals. There is evidently a tendency for the discussions on nomenclature to fill up the available time rather than to be in proportion to the number of proposals. The discussions were more relaxed and leisurely than ever before. Also conducive to the tranquil atmosphere were the luxurious and especially comfortable surroundings of the well-cushioned, air-conditioned auditorium of the student union building with its clear but soft acoustics, perhaps a clever architectural device of the Establishment to tune down the often too-loud student voices.

Never before were the members of the nomenclature section taken care of so well. The section has many almost permanent guests; some of the two hundred or so members attended nomenclature sessions in Stockholm (1950), and a few started as early as 1930 in Cambridge. These old-timers found it a relief not to suffer once again from puritanically hard and upright wooden benches or from a suffocating stuffiness; they enjoyed for once the concentration on business, with perhaps an occasional snooze.

Reed Rollins led the sessions with gentle firmness, occasionally relieved by Bob Ross. The procedure was standard, but there was one exhilarating exception: the U.S.A. Postmaster-General had decided that Saturday, August 23 would be the first day of issue of the four postage stamps commemorating the Congress. A public ceremony at Seattle on this pre-Congress day required an audience somewhat larger than the platform party, and the hospitality of the Nomenclature Section was invoked. One hour of the Saturday morning went by gaily with this ceremony, enlivened as it was by what appeared to some ignorant outsiders as a highly spirited village band but which was—of course—the Seattle post office band, playing botanical music ('Edelweiss'). The stamps themselves featured four plants characterizing the four corners of the U.S.A. (originally designed by Niki Threlkeld but later changed by an official stamp designer), duly depicted with their correct scientific names. One of these names,
*Pseudotsuga menziesii* (the tree symbolizing the Congress) was once the subject of a hotly disputed case of nomenclatural instability.

The section accepted only 30 of the 223 proposals; it referred 55 to the Editorial Committee, rejected 120, and disposed of 18 in a different way. The high number of proposals referred to the Editorial Committee confirms the trend to go into editorial minutiae rather than to challenge main principles or procedures.

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<td>Accepted (%)</td>
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<td>Rejected (%)</td>
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<td>Otherwise disposed of (%)</td>
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<td>Total number of proposals</td>
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The diminishing return upon nomenclature proposals seems established. Most botanists involved in nomenclature in one way or another are now reluctant to accept far reaching reforms. At Seattle, as at Edinburgh, not a single major change was accepted; the proposals that were accepted are either technical clarifications or deal with special groups, such as hybrids, where changes in scientific concepts have to be reflected by the Code. The main function of the Nomenclature Section has become one of an instrument of awareness. There are still a few problems, however, such as superfluous names, articles 69–71, and the application of priority and typification to names of taxa above the rank of family, which require adequate attention. Most of the time and energy at Seattle was spent on a discussion of these issues.

**Procedure**

The section decided again that a 60% majority would be necessary for the acceptance of any proposal modifying the rules. All principles of procedure were voted upon by simple majority. A card vote, which shows the impact of institutional votes more clearly, was taken only six times. One of these votes was on the capital issue of Capparaceae against Capparidaceae. This card vote resulted in 188 no (to a return to Capparidaceae) and 114 yes, which was almost the same ratio as shown by the first vote taken by a show of hands: ± 60 no and ± 40 yes. With the simplified procedure of the card vote, however, this definitive type of voting should now be invoked more often in cases of doubt.

**Stabilization and ambiguity**

In contrast to previous meetings ‘stabilization’ was not a big issue at Seattle. The Standing Committee on Stabilization presented its first detailed report, mainly consisting of a list of some seventy names whose standing had been in doubt but which were found to be correct under the present Code. All these names are of economically important plants. Many of these cases had been submitted as a reaction to the useful ‘Punt’ report (‘Preliminary report on the stabilization of names of plants of economic importance’) presented at Edinburgh. The work done on these seventy names was considerable, but it is clear now that no stream of applications for special action was...
unleashed and that the present system is adequate. Many outside agencies, for instance ISO committees and the seed trade organization ISTA, are perfectly willing to accept for their lists names 'stabilized' by means of this procedure. Obviously there will remain cases where horticulturists especially will be reluctant to accept changes. These instances are very frequently of a taxonomic rather than a nomenclatural nature.

The inevitable proposals, also aimed at stabilization, calling for *nomina specifica conservanda* had been presented but were not discussed because they were heavily defeated in the preliminary vote. Another old-timer was 'new article 14 bis' on *nomina specifica rejicienda*, which was discussed briefly, though with little enthusiasm, and rejected so clearly that not even a count of hands was necessary.

Also closely connected with stabilization are articles 69, 70 and 71. At Edinburgh a proposal was made from the floor to reintroduce a sentence in article 69 stating that a list of names to be rejected under this article would be given in an appendix. The special committee set up at Edinburgh to report on this issue at Seattle presented statements by two of its members, but no consolidated report. It was again decided to postpone action. The two diverging points of view remain: on the one hand it is maintained, especially by those working with the European flora, that article 69 is relevant and that a list (restricted to names published in the first fifty years after the starting point of the group concerned) would be extremely helpful. William Stearn pleaded eloquently for leaving this almost exclusively 'European' field to the Europeans. On the other hand the opinion persists that since our present Code is based on the type method, article 69 is not needed. Either one can typify a name and then it can be used appropriately, or one cannot typify it, and in that case one cannot use the name at all. Even though there might have been a majority this time for the proposal (another old-timer) to delete article 69 altogether, the section once more referred the whole set of problems connected with articles 69, 70 and 71 to a committee, for report in six years' time. In the meantime it should be noted that the Standing Committee on Stabilization, which acts with the Code in hand, invoked article 69 in a few cases to substantiate its decisions.

*Hubris on hybrids*

An unexpectedly high number of proposals dealing with the nomenclature of hybrids had been put forward. One of these proposals asked for the transfer of most of Appendix I to the body of the Code. The Committee for Hybrids went even further. "On grounds of logic, convenience and clarity it concluded unanimously that all provisions relating to hybrids at present in Appendix I should be inserted at appropriate places, with consequent editorial modifications, in the main text, and Appendix I abolished". The secretary of the committee, in his delightful and erudite way, explained that the Victorian times in which hybrids were something to be hidden, something that should not exist, were far behind us and that the time had come for those laying down the rules to admit that hybrids are among the facts of life, that they are scientifically perhaps the gist of evolutionary taxonomy and that their nomenclature should in no way appear to be not on a par with that of 'ordinary' plants, whatever they might be. Stearn's eloquence, however, and the unanimity of an important, internationally very well balanced committee, were insufficient. The committee's proposal was very clearly defeated even without much having been said against it. This decision showed perhaps most clearly, and in this case distressingly, the overly strong reluctance of the group at Seattle to accept any change in the Code at all.

It was agreed, for purposes of clarity, not to use any longer the term 'specific epithet' for epithets of hybrids, but to adopt the term 'collective epithet' already in
use in the *International Code of Nomenclature for Cultivated Plants*. Another positive decision was to treat all epithets subordinate to the binary name of a hybrid as if published in the rank of nothomorph. In other words, there is only one rank below that of an interspecific hybrid, namely that of nothomorph (equal to variety).

**How to bring orders to order**

The story about the higher taxa (above family) is familiar. At Paris (1954) the nomenclature committees were asked to study the desirability of applying the rules of priority and typification to names of higher taxa. At Montreal (1959) there was a surprising agreement among the committees that these names could not yet be made the subject of stabilization through rules. One of the main arguments for maintaining this state of flux, at any rate for the time being, was that there was no list of these names. This is only half true: Pfeiffer's phenomenal but too often overlooked *Nomenclator botanicus* lists most of these names up to about 1870. However, the great flood of names published later was indeed not accounted for except in some special cases. The intent at Montreal seemed to be to let the botanists use the familiar names, many of which would have to be abandoned if priority and typification had to be enforced.

It is likely that it will be simpler to apply the rules of typification to these names than the rule of priority. On the other hand, in some groups — and Papenfuss pleaded eloquently that this is the case in Algae — the application of both priority and typification would not really be disturbing at all, but would result in real stability. For seed plants this seems not yet the case, and for this reason it had been proposed to open the way for the formal conservation of such names. Here, however, the section sensed trouble ahead. In a field in which the delimitations are so extremely varied, and where personal opinion weighs more heavily than in most other parts of botany, such conservation could well lead to attempts at freezing certain systems at the cost of others. A proposal by Ross brought the not unexpected provisional answer: a special committee would be set up to consider the possibility and the efforts of the introduction of the principles of priority and typification for names of higher taxa. With Cronquist as chairman, T. Christensen, L. Holm, J. M. Schopf and P. C. Silva make up this team, which has six years to come up with a redemptive effort.

**Conservation, a cure for all evils?**

Conservation of names of species and of names of taxa above family having been rejected once more, the conservation of generic names still enlivened the discussions. The great spokesman for conservation à tort et à travers, E. L. Little Jr. (now with 17,000 foresters behind him) forcefully interjected on several occasions his perpetual 'conservanda sunt nomina' in a spirit somewhat more constructive than Cato. Some 150 generic names were proposed for conservation in the past five years, just about the maximum for which committee manpower seems to be available.

A historical marker was removed from the Code. The Vienna Congress introduced conservation in order to deal with the havoc created by Otto Kuntze's rigorous application of the rule of priority in his *Revisio generum plantarum* of 1891. Article 20 of the Vienna Code (now Art. 14) pointedly said that names to be conserved were "by preference those which have come into general use in the fifty years following their publication, or which have been used in monographs and important floristics (floristiques) works *up to the year 1890*". [Italics mine]. Bullock had tried to reword this, but a motion from the floor, by Cronquist, proposed the deletion of the sentence altogether. With the almost unanimous acceptance of this motion there disappeared one of the last direct references to the tumultuous beginning of our Code.

In conservation, as everywhere else, we have puritans and liberals. One mycologist
of universal fame used to describe the article on conservation as the chamber of horrors in which everything is possible. Some want to spell out the manifold possibilities of conservation, such as the artificial creation of later homonyms for purposes of typification, in great detail; others, more lenient, prefer to keep the article as general as possible. In the proceedings of the nomenclature committees these extremes also clash. Wholesale conservation (say yes to every proposal) encounters opposition in more puritanical quarters. Only some minor textual changes in article 14 were accepted, in addition to the major deletion of its third sentence, and the procedure therefore stands unchanged. The code now simply says: “Conservation aims at retention of those generic names which best serve stability of nomenclature”. Strangely enough this sentence mentions only generic names, whereas we also have conserved family names.

Of autonyms and autonyms

One of the sweeping reforms of the Stockholm Congress was the introduction of autonymous designations for infraspecific taxa including the type of the species. The subspecies, variety and form of Lobelia spicata Lamarck including the type of this specific name must be called Lobelia spicata Lam. ssp. spicata, var. spicata and fo. spicata. When a subspecies (or a variety or form) is described under a hitherto undivided species, this is automatically accompanied by the creation of such a autonymous ternary combination for that part of the species which includes the type.

At Paris (1954) this principle was extended to names of subgenera and sections, and at Montreal (1959) to names of any taxon of a rank below family and above genus.

As long as these rules are applied to the subordinate taxa including the type of the respective family, genus or species, this works fine. However, the practical application of these rules was much wider because they applied to any taxon including the type of the next higher taxon. Wood and Webster, in a well-documented paper in Taxon (17: 645–651), pointed out that this extreme breadth given to the autonymous principle resulted in a situation in which (1) a taxon with a particular circumscription, position and rank could bear two correct names, which is contrary to Principle IV, and (2) taxonomy and nomenclature become inextricably confused.

“In the family Ericaceae the oldest legitimate name for the tribe which includes Rhododendron L. is Rhodorea D. Don. (type genus Rhodora L.). However if the subfamily Rhododendroideae Endl. (type genus, Rhododendron L.) is recognized taxonomically, Rhodorea is no longer the correct name, and the name of this same tribe in precisely the same circumscription, position and rank becomes Rhododendreae (cited without an author)”. (Wood and Webster).

This situation is clearly extremely confusing. It is also contrary to the basic principle of the Code that even though every plant is treated as belonging to a family, a genus, and a species, it is not treated as also having to belong to a subfamily, a tribe, etc. This principle is reflected in nomenclature. The name of the section Rhodorea D. Don is just that (nominal) and can reflect in no way a possible subfamilial taxonomy. With infraspecific taxa this is also clear. Names of such taxa are ternary combinations, for example Saxifraga aizoon subforma surculosa; any longer string of epithets (admissible) is just an illustration of a taxonomic viewpoint. The fact that an epithet may not be used for different infraspecific taxa within the same species irrespective of rank further illustrates this principle.

The undesirability of this over-extended scope for autonymy was realized only gradually after Montreal. At Seattle this scope was again restricted to names of ‘infrataxa’ containing the type of the name of the relevant species, genus or family;
the Wood and Webster proposals on arts. 19, 22 and 26 were accepted without modification. This decision will undoubtedly come as a relief to many monographers.

A further complication had arisen with respect to such automatically created tautonyms (for names of taxa between family and genus, which are monomial and hence not combinations, the word ‘tautonym’ is not quite appropriate). The question was: are such names to be taken into consideration in questions of priority? Brummitt and Chater wanted to write an explicit ‘yes’ to this question into the Code. The section said ‘no’. A motion by Fosberg was carried stating that “automatically created names or epithets are not transferable”, this being a positive wording for a proposal to the same effect made by Morton. The section further introduced the word ‘autonym’ for the concept of ‘automatically created tautonyms’.

Gandoger, black sheep

Wilmott, at the Amsterdam Congress (1935), proposed the introduction into the Code of “a list of works treated as not validly published, owing to the nomenclature used in them being contrary to the international rules”. Among the works to be banished from the domain of botanical nomenclature were Adanson’s Familles des plantes, Necker’s Elementa and Gandoger’s Flora Europae. The proposal was not accepted but was referred to a special committee which would report to the next Congress; however, no action was taken at Stockholm (1950). At Montreal Necker was de facto outlawed, because he was said to have used unitary designations of species (art. 20), even though these designations stand clearly for what we now call genera.

At Seattle Gandoger’s time had come. In his Flora europae this author published some 150,000 binomial designations of microspecies which have so far been ignored for purposes of priority of species designations. Some authors maintain that they should be taken into account as regular binary names referring to species. Others, however, hold that since Gandoger had two categories of species of which the first received ‘Linnaean’ binary names, the second has to be considered as infraspecific. It is also possible to say that under arts. 5 and 33 (a name given to a taxon whose rank is at the same time denoted by a misplaced term . . . ) it is impossible to have species within species. Few, if any, botanists want to take up Gandoger’s names of microspecies from the Flora Europae (his other publications are not disputed), and several solutions have been proposed. The Section decided (1) that these names of Gandoger are inadmissible and not validly published, and (2) that the Code should express this by mentioning the book and the names as an example under Article 33.

Superfluous names, da capo

A strict interpretation of article 63 may result in what looks like a waste of good names. In those cases where a name is a straightforward substitute for another name, put forward without a good reason recognized by the Code, there is no problem. Such names are truly superfluous. Difficulties arise when an author includes in his circumscription “the type of a name or epithet which ought to have been adopted under the rules” but of which he apparently did not know the true identity. The type of that cited name may well turn out to belong to a different taxon. The later name is in that case not really superfluous. It is not necessary to retrace here the long and intricate history of this stumbling stone of botanical nomenclature. Morton has given an excellent historical account in the Seattle Synopsis (pp. 74–76).

The Committee on Superfluous Names set up at Edinburgh to end all this trouble had found it difficult to start. Thanks to a heroic effort by Morton, however, the
Seattle section had before it a report consisting of four, in part greatly divergent statements and proposals by Burtt, Jacobs, Morton and Silva. These statements contained 18 proposals which varied in scope from the complete elimination of the concept of illegitimacy — with subsequent corrective action by means of *nomina specifica conservanda* — to a prudent addition of a few words clarifying the note to article 63.

The section was not in the mood to deal thoroughly with all proposals. Several of them had been rejected by very large majorities in the mail vote. Fosberg stole the show by at once proposing to "table the committee's report". Such action would have ended the consideration of all proposals on superfluous names. It was mellowed by an amendment, accepted by the proposer, allowing proposal G (report) by Morton and prop. C (art. 63) by Tryon to be excepted from the tabling. The section then took two decisions: (1) it accepted Morton's proposal G and (2) it accepted a motion by Donk to continue the Commission (not necessarily its personnel) with the charge to consider the possibility of exempting certain groups from the consequences of the article.

The acceptance of the Morton proposal means that the note to article 63 now reads: "The inclusion of a type (see art. 7) is here understood to mean the citation of a type specimen, ... [unchanged] ..., or the citation of the name itself, unless the type is at the same time excluded *either explicitly or by implication*" (new words in italics). This change brings certainly some relief because it takes away much of the automatism to which many objected in article 63. Opinions on this automatism (whether it was actually there or not) were divided. Now it is clear that such automatism is neither intended nor wanted. When it can be shown that the type of a cited name cannot within reason have been included by the author within the circumscription of his new taxon, his name does not become automatically superfluous on account of the mere citation of the older names. In that case one cannot speak of an *avowed substitute* as referred to in article 7 note 4, and automatic mistypification is also impossible.

**Nomenclatural delight**

The good example of Edinburgh to have a 'nomenclature dinner' was followed at Seattle. On Friday evening over 150 botanists and associates met for dinner at the unofficial Congress headquarters, the University Tower Hotel. The ballroom seated the tired debaters comfortably, after their forces had been quickly restored in the Regent's room by means of all-American alcoholic refreshments. Nomenclaturists delight in changing glasses rather than names. At dinner tribute was paid to the American hosts and to the many efforts of American systematists on behalf of nomenclature. These efforts date back all the way to the 1893 Madison botanical congress, which failed to be international, notwithstanding the presence of two de Vilmorins from Paris. In this respect Seattle did not match Madison: there was only one de Vilmorin, son and grandson of the participants of 1893. Ithaca (1926) had also considered itself insufficiently international to take binding decisions on nomenclature, but Seattle had a truly international attendance. The dinner was honored by the presence of Kenneth B. Raper, chairman of the organizing committee of the Congress, who could note, even before the formal opening of the Eleventh Congress, that his efforts and those of his team had resulted in a great success. The organization at 'Seattle' was excellent, the hospitality great, the scenery impressive, the weather ideal. A fair challenge to Leningrad 1975.

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