STABILIZATION OF THE NAMES OF IMPORTANT PLANT SPECIES

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At the international botanical congresses held in this century decisions were taken which led to considerable progress in the stabilization of botanical nomenclature. Very important in this respect was the congress held at Vienna in 1905, where it was decided that generic names such as had come into general use, might be conserved against all earlier synonyms; in this way a stop was put to the confusion to which an unconditional application of the principle of priority would have led. Other important results were obtained at the congress held at Cambridge in 1930, where e.g. the type method was incorporated in the rules. At Amsterdam, five years later, but a few minor points were settled. The results obtained at the Stockholm congress held in 1950 were once more of considerable importance, not so much because entirely new points of view were brought forward, but because a more methodical formulation was given to the principles which had been laid down at Cambridge. The congresses held at Paris in 1954 and at Montreal in 1959 brought a comparatively large number of corrections, but the latter remained confined to points of minor importance.

The discussions which took place at the more recent congresses have made it clear that the majority of the questions of nomenclature on which taxonomists at first disagreed, have been settled. There is, in fact, but one point of major importance on which as yet no agreement has been reached, although it has been discussed at several congresses, and although, especially at the three last ones, it has been the subject of long and occasionally even somewhat heated debates. The point I mean is that of the desirability of stabilizing the specific names of important plants, in the first place therefore of plants which play a prominent part in horticulture, silviculture and agriculture. It should be realized that one of the consequences of the increasing interest in plant taxonomy which developed in this century, was that more attention was paid to questions of nomenclature. This led to a more stringent formulation of the rules by which the latter is bound. The rules became less accommodating, with the result that the names of some economically important plant species which had been in use for a long time, had to be replaced. That this was not greatly appreciated by plant growers and by those botanists who are not directly interested in plant taxonomy, is easily conceivable. However, even among the plant taxonomists themselves already from the beginning a group was found who supported the opposition against this rigorous application of the rules of nomenclature, and from that side some amendments were proposed which intended to meet the wishes of those who were not directly concerned with taxonomy. Especially at Stockholm and at Paris such amendments were brought forward, but not one of them succeeded in obtaining a majority; in fact, the number of votes in favour of them re-
mained far below the latter. At Paris a committee was appointed to report to the next congress, that at Montreal, and eventually to submit proposals, but this committee too did not succeed in formulating a proposal which proved acceptable, and the discussion held at Montreal was hardly more than a repetition of the debates that had taken place at previous congresses.

The controversy on this point unfortunately began to create a feeling of distress. At one side there was a rather strong group of plant taxonomists who were of opinion that this point had been sufficiently discussed, and that it would be a mere waste of time to bring it up at a future congress; as the opposition had never succeeded in obtaining a majority for their amendments, it looked most unlikely that they would do so in the future. The opposition, on the other hand, threatened, either overtly or in more or less concealed terms, to go their own way if nothing was done to meet their desires.

As the antagonism of the first-mentioned group of plant taxonomists against the wishes of the other group seemed to rest for a large part on a feeling of uneasiness with regard to the implications to which acceptance of the amendments might lead, i.e. on a reluctance to bind themselves to measures of an unknown scope, it seemed to me that it would be wise to study these implications in some detail, and I accordingly made a proposal to this end. It was well received and temporarily calmed the waves. It was decided that a list of names of economically important plant species should be drawn up and submitted to the congress which is to be held at Edinburgh in 1964, and that each name should be accompanied by a note in which it is pointed out whether it is correct or not. The elaboration of this list was made possible by ample financial aid received from the National Science Foundation and the Society of American Foresters of the United States, the Royal Horticultural Society of Great Britain, the International Union of Biological Sciences, the International Association for Plant Taxonomy, and het Productschap voor Siergewassen, het Landbouwchap, de Commissie voor de Tulpenregistratie of the Netherlands.

Although a fully exhaustive study of such a large number of specific names could not be completed in the short time at our disposal, it is to be expected that the list that is to be submitted to the congress, will give a fairly satisfactory picture of the range of difficulties with which we are confronted. The list will in the main comprise three groups of names, viz.

1. names which are not only correct, at least so far as we know at present, but which are also in general use; this is the largest group;

2. names which are incorrect, but for which already in the past or more recently correct names have been substituted; it is hardly conceivable that a majority will be found which would be in favour of the re-establishment of these incorrect names; and

3. names which are incorrect, but for which as yet no correct names have been substituted; this is a very small group.

What attitude should we assume with regard to this report, and in what direction should we try to find a solution of our problem?

In order to obtain the desired stabilization three different procedures have been recommended, which may be formulated as follows.

1. Names which have not been used for some time, e.g. for 30 or for 50 years, should not be reintroduced as substitutes for names which have been in general use during that period.

Whether a name has been entirely neglected during a certain length of time, is very difficult to find out, and for this reason the advocates of this procedure have never found much adhesion.

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2. The acceptance of the principle of *nomina specif ica rejicienda*, which demands that certain names, although they are the correct ones, should be rejected because their use would necessitate the elimination of commonly accepted names.

This procedure, which looks fairly simple, has been advocated by a group of British taxonomists (Dandy e.a.). A drawback is that it does not protect a name against all other ones but only against the nomen rejiciendum. It impresses me, moreover, as not entirely fair, as it disqualifies the rejected name.

For this procedure too no majority has ever been obtained.

3. The introduction of the principle of *nomina specif ica conservanda*. In opposition to the preceding procedure this one protects a name against all other ones, against those of which we know that they have been applied to the same species as well as against those which in the future will appear to be applicable to the latter. This, however, does not imply a disqualification of these names; the latter retain their value, though they can no longer be used because they have been replaced by other ones.

For this procedure too so far no majority could be found, but in my opinion this must mainly be due to the circumstance that it was impossible to say what its implications might be. Many taxonomists feared that the acceptance of this principle would lead, just as in the case of the *nomina generica conservanda*, to a never ceasing increase in the number of conserved names.

In the foregoing paragraphs we have considered the problem with which we are confronted, and reviewed the solutions of this problem that so far have been proposed. These remarks may serve as an introduction to my exposition of the way in which, in my opinion, the problem will have to be tackled at the Edinburgh congress.

That a solution will have to be found, seems undeniable; this old sore must be healed. The proposals which I am going to make, will undoubtedly raise protests, of this I am well aware, and many of my colleagues will regard them as little less than revolutionary. However, I feel it my duty to expound them, and to do this now, so that everyone who is interested in this problem, will have time to consider them at his ease before they are debated at the congress. This will facilitate the discussion.

The preceding considerations will have made it clear that the only acceptable solution is, in my opinion, to be found in the principle of *nomina specif ica conservanda.*\(^1\)

Originally I was against this solution, but after discussing the question with several of my colleagues, I have changed my opinion, and now I am convinced that there are no unsurmountable objections against this principle and against the elaboration of a list of conserved specific names, at least if some conditions which will be specified hereafter, are fulfilled.

That nomenclature is only a means, not an end in itself, has already very often been pointed out; it is a truth we should always bear in mind. We wish to have names for our plant species which can be used with safety because we know to which species they apply. Whether these names have been formed according to the set of rules laid down in the code of nomenclature or according to a special rule which puts the other ones out of action, is after all of no importance. The only end we have in view is to provide names which can not be misunderstood, and if such a name is available, its conservation offers no difficulty and may have a distinct advantage. It frees us from the obligation to study in detail the correctness of other names which have been applied to the same species and by which it might eventually be replaced. Names belonging to the first of the three groups mentioned above, and of which we assume therefore that they are correct, may after all prove to be incorrect. However, if the names belonging to this group are conserved, they are protected for all times against the claims of other ones.

\(^1\) *Proposal* no. 87. The section is requested to express itself on the desirability to incorporate the principle of *nomina specif ica conservanda* in the Code.
If we agree on the desirability of accepting the principle of *nomina specifica conservanda*, we may turn our attention to the next point of the agenda, the way in which the conservation is to be carried out. No specific name should be conserved unless it fulfills certain conditions which should be carefully formulated.

The first condition is that the name which is to be conserved, is in general use; names which by one group of taxonomists are accepted and by another group rejected, should not be taken into consideration. The second condition is that there may be no uncertainty whatever as to the application of the name. This means that it must be bound to a type specimen; if such a type specimen is not yet available, a choice should be made. This condition is of the utmost importance; we must have a standard by which the identity of the species to which the names are applied, can be judged. The choice of a type is in this case a delicate task, and in order to accomplish this task in a satisfactory way, some rather revolutionary measures will have to be taken. To make this clear we will have to enter somewhat deeper into the difficulties with which we are confronted.

It is well-known that a rather large part of the names that are commonly used for economically important plant species have never been typified in a satisfactory way; if there is a type, this is often inadequate, either because it is not representative or because it is incomplete or in a bad condition; another drawback with which we are not rarely confronted, is that the type is more or less inaccessible. It seems desirable to find a radical solution for these difficulties in the case of economically important plant species. I see this in a renewed typification of all the names that are to be included in the list of *nomina specifica conservanda*, even of those of which a type is available. This typification would have to be carried out by experts appointed by the General Committee of Botanical Nomenclature. The new type specimens should give a picture as complete as possible of the species, in the case of an Angiospermous plant, for instance, it should be provided with flowers and fruits, etc. For each of the names that are to be conserved ten new type specimens should be selected which may differ only in minor points. These ten specimens should be distributed to ten internationally chosen centres, which will have to satisfy some rather strict conditions, especially with regard to the preservation of the specimens. The latter should not be sent on loan, but may be studied in the official centres. Of these new type specimens moreover descriptions accompanied by photographs and drawings will have to be published, and these publications must be made available to all who are interested in them. The last condition is that the list should be a closed one, i.e. that there will be no opportunity to add other names.

If the second of the above-mentioned condition is fulfilled, the names on the list of *nomina specifica conservanda* would be well defined, and we would have the certainty that they are everywhere used in the same sense.

It is not entirely excluded that some of the retypified names will at a later date prove to be applied in a sense which differs from that in which they were applied by the original author. In that case the name of the author attached to the specific name would be wrong. This would be unfortunate, but it can not be helped, and it does not seem to be a very serious drawback.

It is perhaps not superfluous to add the following remark. The conservation of a specific name will have no validity outside the genus in which the species at the moment of conservation was included. If the species is transferred to another genus, the normal rules of nomenclature will have to be applied. This is unavoidable, as the conservation of a name should never infringe on the dictates of our scientific conviction. Moreover, it should be realized that a change in the generic name is such a drastic measure that a change of the specific epithet which it might necessitate, is in comparison of negligible importance.

To end this exposition a few words should be said on the number of names that may be involved. I suppose that this will be found somewhere between one hundred and two
hundred, but it is not entirely excluded that it will reach a value of about one thousand. This does not look to me of much importance; if the committee would arrive at the conclusion that there are two thousand "important species", I would certainly be prepared to accept a corresponding number of conserved names.

The proposals expounded in this paper have been made in the sincere hope that they will be carefully considered. If the reader feels that he must object to them, I hope that he will communicate his objections to me. If, on the other hand, he agrees with them, I hope that he will give me his support.

Proposal no. 88: to insert in the section dealing with the nomenclature of species, genera, etc. the following new article.

New Article. "The conserved names of species are to be retypedified under the auspices of the General Committee. This authorized typification will be binding for the interpretation of the conserved names. The new types are to be distributed to the following official centres, viz. . . ."

THE RIDDLE OF THE SPHINX

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It is not easy to find out what the present Code precisely means by 'legitimate' and 'illegitimate'. Even with an intimate knowledge of the discussions held at the various Congresses, and after consulting several colleagues as well as much guessing, the conclusions arrived at below remain shrouded in some measure of uncertainty. The only sure conclusion is that Art. 6 (providing definitions of the various nomenclatural status of names) is no adequate divining-rod; and that the Section "Rejection of names and epithets" (Arts. 62–72) is equivocal and confusing in some of its parts. This failure of the Code to be an easily comprehensible and sure guide in these matters is to be regretted and calls for action.

That the situation is bad I know not only from personal experience. Being somehow considered an expert in nomenclatural matters, I am often asked to solve 'cases' or to explain the precise bearing of some of the rulings in the mentioned Section, including those in regard to later homonyms and the so-called superfluous names of Art. 63. Among my enquirers are not only students but also some prominent taxonomists, to whom the Section has become a first class riddle that they have no time to solve or, when they see the light, refuse to follow its rulings because it would force them to waste much precious time for a questionable cause, a cause without rhyme or reason and contrary to what they consider current usage. This situation is a far cry from what it should be: nomenclatural rules should be the handmaiden of the taxonomist and the first demand on the Code is that it be usable without recourse to a complete nomenclatural library, extensive historical research, or superhuman insight.

The present paper is intended to unburden a subsequent one from a lengthy digression that would hinder its readability. The second paper ("A conspectus of the nomenclatural status of names") will be prefatory to a third ("On superfluous names") and a fourth ("On the status of later homonyms") in which I particularly want to discuss the subjects suggested by their titles.

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† I am much indebted to Mr. A. A. Bullock, The Herbarium, Royal Botanic Gardens, Kew, for improving the English text of this and the three other papers of the series, as well as for critical remarks which have been of great advantage to me. However, his kind cooperation does not imply that he subscribes to the views and conclusions expressed in these papers.