

Later Starting Points in Algae

Author(s): Paul C. Silva

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## LATER STARTING POINTS IN ALGAE

Paul C. Silva (Urbana, Illinois)\*

In the International Code of Botanical Nomenclature the most significant exception to the principles of priority of publication and of the type method is the provision for later starting points for certain groups specified in Article 13. Unlike conservation (Article 14), which legalizes exceptions in individually proposed, argued, considered, and approved cases on and above the generic level, later starting points violate the principles of the Code at all taxonomic levels. Donk (Taxon 6: 245-256. 1957) has summarized the history and philosophy of later starting points. In the same account he gives massive evidence of almost overwhelming uncertainty and confusion resulting from differences in methods of typifying revalidated names of fungi. The purpose of the present note is to support an accompanying proposal that later starting points in the algae be eliminated.

- (1) Later starting points violate two of the most basic principles of the Code, namely, priority of publication and the type method. This violation is supposedly justified by the consideration that for certain groups of algae a more stable nomenclature results from the use of a later starting point because of the uncertainty and difficulty inherent in attempts to determine the application of names published between 1753 and the later starting point. To quote, for example, Nordstedt (Bot. Not. 1906: 116. 1906) in his proposal for a later starting point for desmids: "From the preceding it will be seen, that during a long time a great uncertainty prevailed as to the definition of species, genera and families.... In my opinion it is best for the stability of nomenclature to start from Ralfs' British Desmidieae 1848 with no emendations or with as few as possible." Such a dubious advantage seems to me to be immeasurably outweighed by the disadvantages of uncertainty and confusion resulting from diversity of interpretation in typifying revalidated names, as discussed immediately below.
- (2) Later starting points create nomenclatural confusion through divergent interpretations of their application. This point is capably elaborated by Donk. In brief, differences of opinion hinge on the consideration whether elements of a type should or should not include pre-starting point materials. Another way of looking at this question is to consider whether the intention of the provision for later starting points was to conserve the taxonomy and nomenclature or merely the nomenclature of a particular starting point author. For fungi, Donk concludes that conservation of nomenclature only was intended (that is, "only a suspension of the priority principle"),

<sup>\*)</sup> I am grateful to Professor G. F. Papenfuss for critically reading this manuscript.

and accordingly he proposes that the Code be modified to specify that later starting points for fungi affect only the dates of publication of names, not the types of these names. In this manner, divergence of interpretation theoretically would be eliminated, or at least greatly reduced, among mycologists. From Nordstedt's proposal, however, it can be seen that the intention in establishing a later starting point for desmids was to conserve both the nomenclature and the taxonomy of Ralfs. In those instances in which Nordstedt doubted that Ralfs had in hand the species that he claimed to have, he excused Ralfs by blaming the uncertainty of identification on inadequacies of the original description and figures. The same defense was used in certain instances in which Ralfs did not adopt the earlier of two competing epithets. Nordstedt's intentions may best be summarized by quoting his proposal: "I propose the following rules for the nomenclature of the Desmidiaceae.

- 1. The nomenclature begins with The British Desmidieae by Ralfs 1848.
- 2. The authors of names, given earlier, but accepted by Ralfs in Brit. Desm., must always be quoted as such (e.g. Ehrenb. sec. Ralfs in Brit. Desm.), except if the identification of the name in Ralfs' Brit. Desm. and in the works of the older authors be very doubtful.
- 3. Exceptions. [There followed two nomenclatural exceptions, that is, usages not adopted by Ralfs but favored by Nordstedt.]"

In my opinion, the extensive analysis, genus by genus and in part species by species, that Nordstedt deemed necessary to justify his proposal speaks strongly against the practicability of later starting points and strongly for the practicability of solving nomenclatural problems through recourse to the basic uncompromised principles of the Code. Contrary to Nordstedt's reasoning, his conclusion that many older names are of indeterminable application does not support the idea of later starting points, because even in the absence of a later starting point such a name, in accordance with the type method, would not be priorable against a later name unless it could be shown that the type was conspecific with the type of the later name.

- (3) Later starting points create nomenclatural uncertainty in that the choice of starting points depends upon taxonomic opinion. Whether or not a generic name is validly published as of a particular date depends upon the lectotypification of the genus to which it applies in those instances in which the originally included species belong to groups with different starting points. For example, Hydrococcus Link (1833) was founded on two species: Ulva pruniformis Linnaeus, referable to Nostoc [Vaucher] Bornet et Flahault (1888); and U. pisiformis Hudson, the identity of which is unknown. Lectotypification of this genus with Ulva pruniformis would devalidate it, inasmuch as valid nomenclature for the group of algae that includes Nostoc begins with the monograph by Bornet and Flahault (1886-1883). Similarly, whether or not a specific epithet is validly published as of a particular date depends upon the taxonomic placement of the type specimen in those instances in which there is a difference of opinion involving groups with different starting points. Relationships between nomenclature and taxonomy are basic in the Code, but except for later starting points and conservation, differences in taxonomic opinion merely lead to differences in the selection of correct names for taxa under consideration. Later starting points (as well as conservation) more profoundly affect nomenclature by invalidating and illegitimatizing certain names and thus evoking repercussions in the realm of homonymy (see immediately below).
- (4) Later starting points create nomenclatural problems by upsetting normal homonymic relationships. As an example of a simple case, Lyngbya C. Agardh (1824), devalidated by a later starting point, was revalidated by Gomont (1893), thus inverting its original homonymic relationship with Lyngbya Gaillon (1823),

an illegitimate substitute name for Ectocarpus Lyngbye (1819). Lyngbya C. Agardh ex Gomont stands in need of conservation, although the date of the devalidated publication (1824) would probably satisfy most phycologists, who accordingly would not understand the need for conservation. As an example of a complicated case, Anabaena Bory (1822, 'Anabaina', orth. mut. Kuetzing, 1843), devalidated by a later starting point, was revalidated by Bornet et Flahault (1883), thus inverting its original homonymic relationship with Anabaena A. Jussieu (1824). But in this case the artificially earlier homonym is the correct name for a genus of Euphorbiaceae recognized by certain workers (e.g., Pax and Hoffmann in Engler, Pflanzenreich IV, 147 9-11: 27. 1919). Although two substitute names have been proposed for Anabaena A. Jussieu in consideration of Anabaena Bory, namely, Romanoa Trevisan (1848) and Anabaenella Pax et Hoffmann (1919), devalidation of the original publication of Anabaena Bory by Article 13 causes Anabaena A. Jussieu to become the correct name for its genus and requires Anabaena Bory ex Bornet et Flahault to receive a different name. Elimination of later starting points would obviate the necessity of changing the name of this well known genus of blue-green algae, although conservation would be necessary to retain legally the spelling Anabaena.

- (5) Later starting points have seldom been used by specialists of the groups concerned, let alone by general taxonomists of algae. Two explanations particularly are suggested: the specialist may not have made consistently serious attempts to work out a firmly based nomenclature to express his taxonomic opinions; or he may have made such attempts and either ignored or found unworkable the provision for later starting points. In either instance the obvious inference is that the use of later starting points has not seemed essential to the specialist.
- (6) Later starting points imply that the Code cannot otherwise competently govern the formulation of a stable nomenclature in certain specified groups. Inasmuch as little if any justification can be given the consideration that the taxonomy of desmids, Oedogoniales, and Oscillatoriales prior to their respective later starting points is essentially in any different state than that of most groups of algae for which 1753 is the starting point, one is led to infer that the Code is in large part a failure insofar as algae are concerned. In my opinion, this is unwarranted pessimism. If the type method is faithfully followed so that all names are either typified or, if not capable of typification, shelved as nomina inquirendae, the Code is seen to be successful in providing a basis for a stable nomenclature for all groups using 1753 as the starting point.\* Disenchantment with the Code usually follows the discovery that taxonomic fluidity, a cherished prerogative, must be accommodated by nomenclatural flexibility, at which point those who are not prepared to adjust would gladly substitute rigidity (fixity) for stability, thereby denying the Code its raison d'être.

Among mycologists one often hears expressed the wish that they were not plagued by later starting points, but the consensus is that it is too late to do anything except to learn to live with them. Among phycologists the question might be raised whether it is too late, even if desirable, to eliminate this provision. Granted that some nomenclatural changes would result which might conceivably inconvenience those workers who have faithfully abided by later starting points, the number of such workers is exceedingly small. Restoration of normal homonymic relationships would necessitate consideration of a few changes in the lists of conserved generic

<sup>\*)</sup> St. John's proposal to delete Article 65 (Taxon 6: 198. 1957) is in keeping with this reasoning and deserves the serious consideration of the Montreal Congress.

names, but a larger number of changes yet to be made under current provisions would be obviated by the elimination of later starting points. Believing that benefits to be derived from eliminating later starting points in the algae far outweigh possible harmful results, I should like to propose that the exceptions to Article 13 g be deleted.<sup>1</sup>)

## REPORT OF THE COMMITTEE FOR SPERMATOPHYTA

## CONSERVATION OF GENERIC NAMES I

H. W. Rickett, Secretary (New York)

This report contains the recommendations of the Committee for Spermatophyta on proposals for conservation of generic names. These proposals fall into several categories. (1) Certain names were studied and reported by the Stockholm Committee (appointed at the Seventh International Botanical Congress at Stockholm, 1950), but were not submitted to a vote. The reports on these proposals were distributed to the present committee - the Paris Committee (appointed at Paris in 1954), further opinions were submitted by members of the committee, and a vote was taken. (2) Certain other names were voted on by the Stockholm Committee but with several abstentions and indecisive results. These were referred to the Paris Committee, and assigned to members of the committee for study and reports, the reports were distributed, further opinions and comments were obtained from the committee, and new votes were taken. (3) Names proposed for conservation (or for deconservation — see below) since the eighth Congress (1954) were assigned to members of the committee for study and reports, the reports were distributed to all members and additional opinions obtained, and a vote was

The names referred to the committee are listed below, in the above categories, with the recommendations of the committee as determined by the voting. The votes are shown by the figures separated by a dash that follow the name or names concerned. By rules of procedure adopted by the committee, an affirmative vote of 70 per cent (6-2) of the active members was required to recommend conservation (or other action). Abstentions from voting were to be counted

as negative votes unless the members in question were incapacitated. There were, however, no abstentions. It is a source of satisfaction that most of the recommendations listed below were voted unanimously.

A very brief digest of the considerations before the committee is added to each proposal.

- (1) Names studied and reported by the Stockholm Committee but not voted on.
- 204. Baldingera Gaertn., Mey. et Scherb. (1799) vs. Typhoides Moench (1794) (0-8) (Syn. Prop. Stockholm 231.)

The arguments advanced for conservation were either purely taxonomic considerations or not in accord with the Code (such as the inappropriateness of the proposed nomen rejiciendum). The single species involved is usually placed under *Phalaris*. *Typhoides* has been used in recent floras.

209. Lasiagrostis Link (1827) vs. Achnatherum Beauv. (1812) (0-8) (Syn. Prop. Stockholm 231. Repert. Sp. Nov. 52: 150. 1943.)

Lasiagrostis has been in general use but Achnatherum has been taken up in recent works. Not all combinations have been made under the latter name, but the genus is small, unimportant, and often merged with Stipa or Calamagrostis.

**788. Ambrosinia** L. (1764) vs. *Ambrosinia* Bassi (1763) (0-8) (Syn. Prop. Stockholm 231. Repert. Sp. Nov. 52: 144-161. 1943. 53: 174-178. 1944.)

Although Bassi's paper appeared in Bonon. Inst. Acad. Comm. in 1767, it had also

<sup>\*\*)</sup> Proposal no. 58 submitted to the International Botanical Congress, Montreal 1959.