
INTERNATIONAL RULES OF
BOTANICAL NOMENCLATURE

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ADOPTED BY THE INTERNATIONAL BOTANICAL CONGRESSES
OF VIENNA, 1905, AND BRUSSELS, 1910

REVISED BY THE INTERNATIONAL BOTANICAL CONGRESS
OF CAMBRIDGE, 1930

COMPILED BY THE EDITORIAL COMMITTEE FOR NOMENCLATURE FROM THE REPORT OF
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RÈGLES INTERNATIONALES DE LA NOMENCLATURE BOTANIQUE

ADOPTÉES PAR LES CONGRÈS INTERNATIONAUX DE BOTANIQUE DE VIENNE, 1905,
BRUXELLES, 1910, ET CAMBRIDGE, 1930

INTERNATIONALE REGELN DER BOTANISCHEN NOMENCLATUR

ANGENOMMEN VON DEN INTERNATIONALEN BOTANISCHEN KONGRESSEN ZU WIEN 1905,
BRÜSSEL 1910 UND CAMBRIDGE 1930

DRITTE AUSGABE

Avant-propos de la première édition.

Le langage technique dont se servent les botanistes pour désigner les innombrables groupes que la science systématique a fait connaître remonte essentiellement à Linné qui, dans ses *Fundamenta* et son *Philosophia botanica*, en a énoncé les principes, tandis qu'il les appliquait dans les ouvrages fondamentaux que sont le *Genera* et le *Species plantarum*, le *Systema Naturae* et autres classiques.

Mais la quantité des faits découverts depuis le milieu du XVIII^{me} siècle a augmenté dans des proportions si prodigieuses, le nombre des chercheurs et de leurs publications s'est tellement accru, le sens de l'exactitude s'est à ce point développé que, à plusieurs reprises, le besoin s'est fait sentir de modifier, d'étendre, de préciser, enfin de coordonner les principes et les règles primitivement posés par Linné. C'est ainsi que, après plusieurs tentatives isolées d'amendement et de codification, le Congrès international de Botanique réuni à Paris en 1867 fut amené à discuter et à adopter sans modifications importantes un recueil de Lois de la Nomenclature botanique élaboré avec un soin et une compétence universellement reconnus par l'illustre Alphonse de Candolle.

Bien que l'acceptation des Lois de 1867 n'ait pas été universelle, elle a cependant été assez générale pour que celles-ci aient servi de base à la plupart des travaux de botanique systématique publiés depuis lors. Les services rendus à la science par Alph. de Candolle et par le Congrès de 1867 sont donc incontestables et doivent être hautement proclamés. Mais, comme toutes les institutions humaines, les Lois de 1867 étaient perfectibles. Les lacunes qu'elles présentaient — dont quelques unes très grosses de conséquences (par exemple l'omission d'une date précise comme point de départ de la nomenclature) — amenèrent Alph. de Candolle lui-même à proposer en 1883, dans ses *Nouvelles remarques sur la Nomenclature botanique*, une série d'amendements importants. Plusieurs articles étaient d'ailleurs interprétés ou appliqués de façons différentes par divers auteurs ou diverses écoles. Aussi, lorsque, en 1891, O. Kuntze publia son *Revisio generum plantarum*, la confusion devint générale. Dans cet ouvrage, d'une très grande érudition, l'auteur adoptait pour la nomenclature un point de départ différent de celui proposé pour les plantes vasculaires par Alphonse de Candolle; il énonçait et appliquait une série de règles nouvelles; enfin en appliquant rigoureusement certains des principes de 1867, il aboutissait au changement d'environ 30000 noms de plantes. Les polémiques acharnées qui se sont livrées autour de l'œuvre de O. Kuntze, les motions de tout genre qu'elles ont fait surgir, l'application de règles particulières destinées à développer ou à mettre un frein aux changements introduits par O. Kuntze, tout cela a contribué avec les publications ultérieures de cet auteur lui-même, à transformer la nomenclature botanique en un véritable chaos. Les choses en sont arrivées au point que certaines flores ou monographies sont devenues absolument inintelligibles pour le commun des botanistes, sans l'emploi de dictionnaires spéciaux, ceux-ci ne suffisant pas même toujours à une interprétation satisfaisante.

L'essai fait en 1892 au Congrès international de Botanique de Gênes de régler certains points importants n'a pas entièrement répondu à l'attente: il fallait, pour obtenir un accord général, reprendre les règles dans leur ensemble. Cependant, plusieurs des décisions prises à

Gênes ont été maintenues par le Congrès de 1905, de sorte que l'œuvre partielle exécutée à cette époque n'a pas été vaine.

En 1900, le Congrès de Paris décida que la revision des Lois de la nomenclature de 1867 constituerait une des tâches des assises internationales de 1905. Sans vouloir refaire l'histoire des préliminaires du Congrès de 1905, il y a lieu de rappeler ici que les travaux de la Commission internationale de nomenclature botanique, instituée à cet effet, et du rapporteur général ont été résumés dans le Texte synoptique des documents destinés à servir de base aux débats du Congrès international de Nomenclature botanique de Vienne 1905, rédigé et présenté au nom de la Commission par le rapporteur M. le Dr. Briquet.

Après des débats poursuivis pendant six séances sur la base du Texte synoptique — débats dont le détail figure ailleurs dans les Actes du Congrès — une Commission de rédaction fut nommée (17 juin 1905) pour élaborer le texte des décisions prises en matière de nomenclature. Cette Commission se composait de MM. Ch. Flahault (Montpellier), A. B. Rendle (Londres), H. Harms (Berlin) et du rapporteur général J. Briquet (Genève).

La tâche de la Commission devait consister dans : la revision rédactionnelle et la coordination minutieuse des décisions prises, le classement rationnel des matières, le choix d'exemples destinés à rendre le texte parfaitement clair.

Cette tâche, que la pratique a montré être beaucoup plus longue et plus difficile qu'il ne paraissait au premier abord, a été accomplie sous la forme suivante.

Le rapporteur général, M. Briquet, a d'abord élaboré un premier texte français des nouvelles règles et recommandations, en suivant exactement le procès-verbal français du secrétaire du Congrès, M. Henri Romieux, les notes du secrétaire anglais, M. Knoche, le compte-rendu sténographique allemand et les notes prises par lui-même au cours des débats. Ce texte, accompagné d'une concordance avec les Lois de 1867, a ensuite été soumis aux trois autres membres de la Commission, pour étude critique et traduction en anglais (M. Rendle) et en allemand (M. Harms). Le rapporteur a, sur le vu des réponses de ses collègues, modifié le texte français primitif en tenant compte des propositions des autres membres de la Commission. Puis ces modifications ont été soumises à nouveau à la Commission et introduites dans les textes anglais et allemand. Enfin, les épreuves du tout ont passé sous les yeux de tous les membres de la Commission au cours de l'impression.

Le travail que la Commission de rédaction présente aujourd'hui aux botanistes est donc une œuvre collective. Le texte français, rédigé par M. Briquet, fait foi en cas de doute sur l'interprétation des textes anglais et allemand. Ces deux derniers textes ont pour auteurs M. Rendle et M. Harms. La liste des noms de genres à conserver a été mise au point (citations, corrections typographiques etc.) par M. Harms, qui en est l'auteur. L'index analytique a été rédigé par M. Briquet, ainsi que la concordance. Cette dernière renferme en outre la liste et la justification des modifications que la Commission a introduites dans le texte voté par le Congrès en vertu des pouvoirs qui lui ont été donnés le 17 juin 1905.

L'ordre dans lequel se suivent les trois textes français, anglais et allemand est celui qui a été adopté dans la dernière édition des Règles internationales de la nomenclature zoologique (1905).

15 février 1906.

La Commission de rédaction:
J. Briquet, Ch. Flahault, H. Harms, A. B. Rendle.

Avant-propos de la deuxième édition.

Le Congrès international de Botanique tenu à Vienne en 1905 avait renvoyé au Congrès de Bruxelles 1910 l'examen d'un certain nombre de questions dont la solution exigeait de nouvelles études. Les travaux préparatoires des Commissions et du Rapporteur ont été résumés dans un Recueil¹⁾ qui a servi de base aux débats de la section de nomenclature botanique du Congrès de Bruxelles. Au cours de cinq laborieuses séances (16—18 mai 1911), quelques modifications et un certain nombre d'additions aux Règles de 1905 ont été adoptées. Ces modifications et additions ont été renvoyées à une commission de rédaction composée de MM. H. Harms (Berlin), L. Mangin (Paris), A. B. Rendle (Londres) et du rapporteur général J. Briquet (Genève), avec mission de les revoir, de les insérer dans le corps des Règles de 1905 et de les accompagner d'exemples caractéristiques.

Cette tâche a été exécutée d'après les mêmes principes qui ont présidé à l'élaboration de la première édition des Règles.

Le rapporteur général, M. Briquet, a élaboré le texte français, en suivant exactement le compte rendu des séances de la section de nomenclature du Congrès de Bruxelles et en tenant compte des remarques qui lui ont été suggérées par les autres membres de la Commission. Le texte anglais a été traduit par M. Rendle, le texte allemand par M. Harms. Les épreuves ont été soumises à tous les membres de la Commission.

Nous avons ajouté à la concordance des Lois de la nomenclature botanique de 1867 et des Règles et Recommandations de 1905 un bref aperçu des articles modifiés ou nouveaux, rédigé sur le plan de la concordance, de façon à permettre au lecteur de se rendre compte rapidement des changements que la seconde édition des Règles présente par rapport à la précédente. Enfin, M. Briquet a revu et mis au point l'index analytique.

La numérotation primitive des articles et recommandations a été maintenue, les prescriptions nouvelles étant intercalées avec les désignations *bis*, *ter* etc. Dans la liste de nomina utique conservanda pour les Phanérogames, les éléments de la liste supplémentaire adoptée par le Congrès de 1910 ont été mis à leur place et sont reconnaissables à l'astérisque qui les précède.

La justification des modifications et additions se trouve dans le compte rendu des débats de la section de Nomenclature du Congrès de Bruxelles, auquel nous renvoyons le lecteur.

1 mai 1911.

La Commission de rédaction:

J. Briquet, H. Harms, L. Mangin, A. B. Rendle.

1) Recueil des documents destinés à servir de base aux débats de la section de nomenclature systématique du Congrès international de Botanique de Bruxelles 1910, présenté au nom du Bureau permanent de nomenclature et des Commissions de nomenclature cryptogamique et paléobotanique, par John Briquet, rapporteur général. 59 p. in-4°. Berlin 1910. Friedländer éd.

Vorwort zur dritten Ausgabe.

Bei der Beratung der Nomenklaturfragen auf dem Internationalen Botanischen Kongreß in Cambridge 1930 hofften wir, daß John Briquet, der Verfasser und Herausgeber der beiden ersten Ausgaben der Regeln, uns auch die neue Ausgabe schenken würde. Durch vorzeitigen Tod (am 26. Oktober 1931) wurde er uns und der Wissenschaft entrissen. So fiel mir, als Stellvertreter Briquets im „Bureau permanent de Nomenclature“, die Aufgabe zu, die dritte Ausgabe vorzubereiten. Unser unvergeßlicher Freund hat noch den Bericht über die Nomenklatur-Verhandlungen des letzten Kongresses verfaßt (Fifth Intern. Bot. Congress, Cambridge 1930; *Compte Rendu des Débats de la Sous-Section de Nomenclature Botanique, Report of Proceedings*, p. 554—652, 1931). Gestützt auf seine unvergleichliche Beherrschung des Stoffes¹⁾ hoffte er, die neue Fassung der Regeln nach den Beschlüssen des Kongresses in kurzer Zeit fertigstellen zu können. Leider war ihm dies nicht mehr vergönnt; in seinem Nachlaß fand sich keine Niederschrift. Da die Britischen Botaniker gründliche und umfassende Vorarbeiten für die Nomenklaturberatungen geleistet hatten (*Proposals by British Botanists*, London 1929), und da ein großer Teil ihrer Vorschläge, besonders was die Anordnung der Regeln betrifft, angenommen worden war, so wandte ich mich an Herrn Dr. A. B. Rendle, Mitglied des „Bureau permanent de Nomenclature“ und des „Editorial Committee of International Rules of Botanical Nomenclature Ed. III“, mit der Bitte um Ausarbeitung der Regeln in englischer Sprache. Er sagte bereitwillig zu und hat dann im Verein mit seinen Kollegen in London, den Mitgliedern des 1924 dort gebildeten Sub-Committee für Nomenklatur J. Ramsbottom, T. A. Sprague, A. J. Wilmott, die neue Fassung fertiggestellt. Die Regeln wurden von mir durchgesehen und ins Deutsche übersetzt. Herr Prof. L. Mangin (Paris), mit Rendle und mir Mitglied des oben genannten „Bureau permanent“ sowie des „Editorial Committee“, lehnte, nach persönlicher Rücksprache mit Dr. Rendle, eine Mitwirkung zu unserem aufrichtigen Bedauern ab. Auf meine Anfrage und mit Zustimmung von Prof. L. Mangin erklärte sich Briquets Amtsnachfolger, Herr Prof. Dr. B. P. G. Hochreutiner in Genf, bereit, die Übertragung in das Französische zu übernehmen. Während dieser Arbeit wurde der Wortlaut der einzelnen Regeln wiederholter Nachprüfung unterzogen. Dabei und sogar noch während des Druckes ergaben sich manche, teilweise nicht unerhebliche Abweichungen in der Auffassung, so daß ein ausgedehnter Briefwechsel zwischen den Herren Rendle, Hochreutiner und mir nötig war, an dem außerdem Herr Dr. T. A. Sprague teilnahm, der seine reichen Kenntnisse aller Nomenklaturfragen bereitwilligst in den Dienst der Sache stellte. So verzögerte sich das Erscheinen sehr bedeutend, und Dr. Rendle hielt es daher für geraten, einen vorläufigen verkürzten Abdruck der neuen Ausgabe unter Fortlassung der meisten Beispiele zu veröffentlichen (in *Journal of Botany* LXXII, London, June 1934, Nr. 858, Supplement; 29 pp.). Dadurch sollte allen Botanikern Gelegenheit gegeben werden, sich rechtzeitig über etwa nötige Ergän-

1) Vgl. J. Briquet, *Recueil Synoptique des documents destinés à servir de base aux débats de la sous-section de nomenclature du V^{me} Congrès International de Botanique Cambridge (Angleterre) 1930* (R. Friedländer u. Sohn, Berlin 1930); *Avis préalable du Bureau Permanent et des Commissions de nomenclature sur les motions soumises aux débats de la sous-section de nomenclature du V^{me} Congrès International de Botanique Cambridge (Angleterre) 1930* (ebenda 1930).

zungen oder Änderungen zu äußern, damit auf dem Kongresse in Amsterdam 1935 darüber verhandelt werden könnte.

Es ist mir eine angenehme Pflicht, allen zu danken, die bei der nicht immer leichten Aufgabe, die für mich in erster Linie in der Zusammenstellung der Ergebnisse der Beratungen von Cambridge bestand, mitgewirkt haben. Vor allem danke ich den Herren Rendle und Hochreutiner für ihre unermüdliche getreue Arbeit an der gemeinsamen Aufgabe. Herr Dr. Sprague¹⁾ hat sich zusammen mit Miss M. L. Green in verdienstvoller Weise um die Fertigstellung der neuen Regeln bemüht; die Listen der beizubehaltenden Gattungsnamen der Phanerogamen wurden von ihm gründlich nachgeprüft. Herr A. J. Wilmott, mit Sprague in hervorragender Weise an der Abfassung der „Proposals“ beteiligt, hat sich der Mühe unterzogen, die Abstimmung über die „Nomina conservanda proposita“ zu leiten und die Geschichte vieler Namen eingehend erforscht. Herr Dr. A. Becherer (Genf) hat den deutschen Text nachgeprüft und auf manche Unklarheiten hingewiesen, die beseitigt werden mußten, und mehrere Beispiele durch passendere ersetzt. Mein Berliner Kollege, Prof. Dr. Joh. Mattfeld, der als Schriftführer an den Beratungen in Cambridge teilgenommen hatte, hat die Manuskripte der Regeln einer sehr sorgfältigen Durchsicht unterzogen und wertvolle Anregungen zur Aufklärung strittiger Punkte gegeben; Herr Dr. Fr. Bolle (Berlin-Dahlem) hat bei der Lesung der Korrekturen der Regeln geholfen.

Herr Dr. A. S. Hitchcock (Washington, D.C.) hatte seinerzeit zur Vorbereitung der Arbeiten des Kongresses für Briquet eine Geldsumme zusammengebracht und ihm zur Verfügung gestellt; einen Teil des verbliebenen Restes konnte ich für die Fertigstellung der neuen Ausgabe verwenden. Auch an dieser Stelle spreche ich Herrn Hitchcock besten Dank für seine Bemühungen aus.

Gewiß werden auch künftig viele Nomenclaturfragen auftauchen, die der Lösung harren. Im großen und ganzen wird aber der von J. Briquet gegründete Bau bestehen bleiben und nur einiger Anbauten oder Ausbauten bedürfen.

Ich schließe mit dem Wunsche, daß auch diese Ausgabe die Arbeiten der systematischen Botanik fördern möge.

H. Harms.

1) Vgl. T. A. Sprague, Plant Nomenclature; in Report of the Botanical Exchange Club for 1932 (Arbroath, Aug. 1933) 300—313.

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I. International rules of botanical nomenclature.

By A. B. Rendle.

Chapter I. General Considerations and Guiding Principles (Art. 1—9).

Art. 1. Botany cannot make satisfactory progress without a precise system of nomenclature, which is used by the great majority of botanists in all countries.

Art. 2. The precepts on which this precise system of botanical nomenclature is based are divided into *principles*, *rules* and *recommendations*. The principles (Art. 1—9, 10—14, 15—19¹) form the basis of the rules and recommendations. The object of the rules (Art. 19—74) is to put the nomenclature of the past into order and to provide for that of the future. They are always retroactive: names or forms of nomenclature contrary to a rule (*illegitimate names or forms*) cannot be maintained. The recommendations deal with subsidiary points, their object being to bring about greater uniformity and clearness in future nomenclature; names or forms contrary to a recommendation cannot on that account be rejected, but they are not examples to be followed.

Art. 3. The rules of nomenclature should be simple and founded on considerations sufficiently clear and forcible for everyone to comprehend and be disposed to accept.

Art. 4. The essential points in nomenclature are: (1) to aim at fixity of names; (2) to avoid or to reject the use of forms and names which may cause error or ambiguity or throw science into confusion.

Next in importance is the avoidance of all useless creation of names.

Other considerations, such as absolute grammatical correctness, regularity or euphony of names, more or less prevailing custom, regard for persons, etc., notwithstanding their undeniable importance are relatively accessory.

Art. 5. In the absence of a relevant rule, or where the consequences of rules are doubtful, established custom must be followed.

Art. 6. Botanical nomenclature is independent of zoological nomenclature in the sense that the name of a plant is not to be rejected simply because it is identical with the name of an animal. If, however, an organism is transferred from the animal to the plant kingdom, its validly published names are to be accepted as botanical nomenclature in the form prescribed by the rules of botanical nomenclature, and if an organism is transferred from the plant to the animal kingdom, its names retain their status in botanical nomenclature.

1) Art. 19 is both a principle and a rule.

Art. 7. Scientific names of all groups are usually taken from Latin or Greek. When taken from any language other than Latin, or formed in an arbitrary manner, they are treated as if they were Latin. Latin terminations should be used so far as possible for new names.

Art. 8. Nomenclature deals with: (1) the *terms* which denote the rank of taxonomic groups (Art. 10—14); (2) the *names* which are applied to the individual groups (Art. 15—72).

Art. 9. The rules and recommendations of botanical nomenclature apply to all classes of the plant kingdom, recent and fossil, with certain distinctly specified exceptions.

Chapter II. Categories of taxonomic groups, and the terms denoting them (Art. 10—14, Rec. I, II).

Art. 10. Every individual plant, interspecific hybrids and chimaeras excepted, belongs to a species (*species*), every species to a genus (*genus*), every genus to a family (*familia*), every family to an order (*ordo*), every order to a class (*classis*), every class to a division (*divisio*).

Art. 11. In many species, varieties (*varietas*), forms (*forma*), and races or biological forms (*forma biologica*) are distinguished; in parasitic species special forms (*forma specialis*), and in certain cultivated species modifications still more numerous; in many genera sections (*sectio*) are distinguished, in many families tribes (*tribus*).

Recommendation I. In parasites, especially parasitic fungi, authors who do not give specific value to forms characterized from a biological standpoint but scarcely or not at all from a morphological standpoint, should distinguish within the species special forms (*forma specialis*) characterized by their adaptation to different hosts.

Art. 12. Finally, if a greater number of intermediate categories are required, the terms for these subdivisions are made by adding the prefix sub (*sub*) to the terms denoting the categories. Thus subfamily (*subfamilia*) denotes a category between a family and a tribe, subtribe (*subtribus*) a category between a tribe and a genus, etc. The classification of subordinated categories may thus be carried, for wild plants, to twenty-three degrees in the following order: Regnum vegetabile. Divisio. Subdivisio. Classis. Subclassis. Ordo. Subordo. Familia. Subfamilia. Tribus. Subtribus. Genus. Subgenus. Sectio. Subsectio. Species. Subspecies. Varietas. Subvarietas. Forma. Forma biologica. Forma specialis. Individuum.

If this list of categories is insufficient it may be augmented by the intercalation of supplementary categories, provided that this does not introduce confusion or error.

Examples: *Series* and *subseries* are categories which may be intercalated between subsection and species.

Recommendation II. The arrangement of species in a genus or in a subdivision of a genus is made by means of typographic signs, letters or numerals.

The arrangement of subspecies under a species is made by letters or numerals; that of varieties by the series of Greek letters α , β , γ , etc. Groups below varieties and also half-breeds are indicated by letters, numerals or typographic signs at the author's will.

Art. 13. The definition of each of these categories varies, up to a certain point, according to individual opinion and the state of the science; but their relative order, sanctioned by custom, must not be altered. No classification is admissible which contains such alterations.

Examples of inadmissible alteration: a form divided into varieties, a species containing genera, a genus containing families or tribes: e. g. Huth (in Engl. Bot. Jahrb. XX, 337: 1895) divided the subgenera of *Delphinium* into "tribes".

Art. 14. The fertilization of one species by another may give rise to a hybrid (*hybrida*); that of a modification or subdivision of a species by another modification of the same species may give rise to a half-breed (*mistus*).

Chapter III. Names of taxonomic groups (Art. 15—72, Rec. III—L).

Section 1. General principles; priority (Art. 15—17, Rec. III).

Art. 15. The purpose of giving a name to a taxonomic group is not to indicate the characters or the history of the group, but to supply a means of referring to it.

Art. 16. Each group with a given circumscription, position and rank can bear only one valid name¹⁾, the earliest that is in accordance with the Rules of Nomenclature.

Art. 17. No one may change a name (or combination of names) without serious motives, based either on more profound knowledge of facts or on the necessity of giving up a nomenclature that is contrary to the Rules.

Recommendation III. Changes in nomenclature should be made only after adequate taxonomic study.

Section 2. The type method (Art. 18, Rec. IV—VII).

Art. 18. The application of names of taxonomic groups is determined by means of *nomenclatural types*. A nomenclatural type is that constituent element of a group to which the name of the group is permanently attached, whether as an accepted name or as a synonym. The name of a group must be changed if the type of that name is excluded (see Art. 66).

The type of the name of an order or suborder is a family, that of the name of a family, subfamily, tribe or subtribe is a genus, that of a generic name is a species, that of the name of a species or group of lower rank is usually a specimen or preparation. In some species, however, the type is a description or figure given by a previous author. Where permanent preservation of a specimen or preparation is impossible, the application of the name of a species or subdivision of a species is determined by means of the original description or figure.

Note: The nomenclatural type is not necessarily the most typical or representative element of a group; it is merely that element with which the name of the group is permanently associated.

Examples: the type of the name *Malvales* is the family *Malvaceae*; the type of the name *Malvaceae* is the genus *Malva*; the type of the name *Malva* is the species *Malva sylvestris* L.; the type of the name *Polyporus amboinensis* Fries is the figure and description in Rumph. *Herb. Amboin.* VI, p. 129, t. 57, fig. 1.

Recommendations:

IV. When publishing names of new groups, authors should indicate carefully the subdivision which is the type of the new name: the type-genus in a family, the type-species in a genus, the type-variety or specimen in a species. This type determines the application of the name in the event of the group being subsequently divided. When describing new species, varieties or forms of parasitic plants, especially Fungi, the host plant of the type should be indicated.

V. When revising a genus, an author should state which species he accepts as the nomenclatural type.

1) In genera and groups of higher rank, the valid name is the earliest name published with the same rank, provided that this is in conformity with the Rules of Nomenclature and the provisions of Arts. 20 and 21.

In subdivisions of genera the valid name is the earliest name published with the same rank provided that this name and its combination with the generic name are in conformity with the Rules of Nomenclature.

In species and groups of lower rank, the valid name is the binary or ternary combination containing the earliest epithet published with the same rank, provided that this combination is in conformity with the Rules of Nomenclature.

VI. In selecting a nomenclatural type for a genus of non-vascular Cryptogams, botanists should, where possible, choose a species that will fix the generic name as it is now commonly applied.

Examples: *Hypoxylon* Fr. (*Summa Veg. Scand.* 383—4). Fries first used the name for a genus to include 25 species now distributed in *Ustilina*, *Anthostoma*, *Nummularia*, *Daldinia*, *Sordaria*, etc. To take the first species, *H. ustulatum* as the type would displace the name *Ustilina*, and most of the other species which are now known as *Hypoxylon* would require another generic name. If, however, *H. coccineum*, species No. 11 in Fries's list, a well-known and widely-distributed species, be taken as the type, the name *Hypoxylon* would be retained in its present general application and the nomenclature would be stabilized. — The genus *Valsa* Fr. (*Summa Veg. Scand.* 410) contained 44 species now placed in several different genera. The first species *V. Sorbi* is now known as a species of *Eutypella*. By selecting *V. ceratophora* Tul. (*V. decorticans* Fr.) the name *Valsa* is retained in its present general application and many nomenclatural changes are avoided¹⁾.

VII. The utmost importance should be given to the preservation of the original ("type") material on which the description of a new group is based. In microscopic Cryptogams the preparations and original drawings, in fleshy Fungi water-colour drawings and specimens suitably prepared or dried, should be preserved. The original account should state where this material is to be found.

Section 3. Limitation of the principle of priority: publication, starting-points, conservation of names (Art. 19—22).

Art. 19. A name of a taxonomic group has no status under the Rules, and no claim to recognition by botanists, unless it is validly published (see Section 6, Art. 37).

Art. 20. Legitimate botanical nomenclature begins for the different groups of plants at the following dates: —

- (a) *Phanerogamae* and *Pteridophyta*, 1753 (Linnaeus, *Species Plantarum*, ed. 1).
- (b) *Muscineae*, 1801 (Hedwig, *Species Muscorum*).
- (c) *Sphagnaceae* and *Hepaticae*, 1753 (Linnaeus, *Species Plantarum*, ed. 1).
- (d) *Lichenes*, 1753 (Linnaeus, *Species Plantarum*, ed. 1).
- (e) *Fungi*: *Uredinales*, *Ustilaginales* and *Gasteromycetes*, 1801 (Persoon, *Synopsis methodica Fungorum*).
- (f) *Fungi caeteri*, 1821—32 (Fries, *Systema mycologicum*).
- (g) *Algae*, 1753 (Linnaeus, *Species Plantarum*, ed. 1).

Exceptions. — *Nostocaceae homocystee*, 1892—93 (Gomont, *Monographie des Oscillariées*, in *Ann. Sci. Nat. Bot. sér. 7. VI, 91, VII, 263*). — *Nostocaceae heterocystee*, 1886—88 (Bornet et Flahault, *Revision des Nostocacées hétérocystées* in *Ann. Sci. Nat. Bot. sér. 7. III, 323, IV, 344, V, 51, VII, 177*). — *Desmidiaceae*, 1848 (Ralfs, *British Desmidiaceae*). — *Oedogoniaceae*, 1900 (Hirn, *Monographie und Iconographie der Oedogoniaceen* in *Act. Soc. Sci. Fenn. XXVII, No. 1*).

- (h) *Myxomycetes*, 1753 (Linnaeus, *Species Plantarum*, ed. 1).

The nomenclature of Fossil Plants of all groups begins with the year 1820.

It is agreed to associate generic names which appear in Linnaeus's *Species Plantarum*, ed. 1 (1753) and ed. 2 (1762—63) with the first subsequent descriptions given under those names in Linnaeus's *Genera Plantarum*, ed. 5 (1754) and ed. 6 (1764).

Art. 21. However, to avoid disadvantageous changes in the nomenclature of genera by the strict application of the Rules of Nomenclature, and especially of the principle of priority in starting from the dates given in Art. 20, the Rules provide a list of names which must be retained as exceptions. These names are 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 floristic works up to the year 1890.

1) Numerous cases of this kind might be cited among the Fungi. Following the above recommendation would largely obviate the need of a lengthy list of *nomina conservanda*.

Note 1. These lists of conserved names will remain permanently open for additions. Any proposal of an additional name must be accompanied by a detailed statement of the cases for and against its conservation. Such proposals must be submitted to the Executive Committee, who will refer them for examination to the Special Committees for the various taxonomic groups¹).

Note 2. The application of conserved names is determined by nomenclatural types, or by substitute-types where necessary or desirable.

Note 3. A conserved name is conserved against all other names for the group, whether these are cited in the corresponding list of rejected names or not, so long as the group concerned is not united or reunited with another group bearing a legitimate name. In the event of union or reunion with another group, the earlier of the two competing names is adopted in accordance with Art. 56.

Note 4. A conserved name is conserved against all earlier homonyms.

Examples. — The generic name *Spergularia* J. et C. Presl (1819) is conserved against *Alsine* L. (1753), emend. Reichb. (1832) (= *Delia* Dum. + *Spergularia*), although *Alsine* L. (1753), partim, is not included in the list of rejected names: *Spergularia* was conserved as including *Delia* (*Alsine* L., partim). — If the genus *Weihea* Spreng. (1825) is united with *Cassipourea* Aubl. (1775), the combined genus will bear the prior name *Cassipourea*, although *Weihea* is conserved, and *Cassipourea* is not. — If *Mahonia* Nutt. (1818) is reunited with *Berberis* L. (1753), the combined genus will bear the prior name *Berberis*, although *Mahonia* is conserved. — *Nasturtium* R. Br. (1812) was conserved only in the restricted sense, for a monotypic genus based on *N. officinale* R. Br.: hence, if it is reunited with *Rorippa* Scop. (1760), it must bear the name *Rorippa*. — The generic name *Swartzia* Schreb. (1791), conserved in 1905 against *Toumatea* Aubl., *Possira* Aubl. and *Hoelzelia* Neck., is thereby conserved automatically against the earlier homonym *Swartzia* Ehrh. (1787).

Art. 22. When a name proposed for conservation²) has been provisionally approved by the Executive Committee, botanists are authorised to retain it pending the decision of the next International Botanical Congress.

Section 4. Nomenclature of the taxonomic groups according to their categories (Art. 23—35, Rec. VIII—XX).

§ 1. Names of groups above the rank of family.

Recommendations:

VIII. Names of divisions and subdivisions, of classes and subclasses, are taken from their chief characters. They are expressed by words of Greek or Latin origin in the plural number, some similarity of form and termination being given to those which designate groups of the same nature.

Examples: *Angiospermae*, *Gymnospermae*, *Monocotyledoneae*, *Dicotyledoneae*, *Pteridophyta*, *Coniferae*. Among Cryptogams old family names such as *Fungi*, *Lichenes*, *Algae*, may be used for names of groups above the rank of family.

IX. Orders are designated preferably by the name of one of their principal families, with the ending *-ales*. Suborders are designated in a similar manner, with the ending *-inae*. But other terminations may be used for these names, provided that they do not lead to confusion or error.

Examples of names of orders: *Polygonales* (from *Polygonaceae*), *Urticales* (from *Urticaceae*), *Glumiflorae*, *Centrospermae*, *Parietales*, *Tubiflorae*, *Microspermae*, *Contortae*. Examples of names of suborders: *Bromeliniinae* (from *Bromeliaceae*), *Malvinae* (from *Malvaceae*), *Tricoccae*, *Enantioblastae*.

§ 2. Names of families and subfamilies, tribes and subtribes.

Art. 23. Names of families are taken from the name of one of their present or former genera and end in *-aceae*.

Examples: *Rosaceae* (from *Rosa*), *Salicaceae* (from *Salix*), *Caryophyllaceae* (from *Caryophyllus*, a pre-Linnean genus).

1) See list of *Nomina conservanda proposita*.

2) There is also to be provided a list of *Nomina conservanda familiarum* (Art. 23; Appendix II).

Exceptions: (1) The following names, sanctioned by long usage, are treated as exceptions to the rule: *Palmae*, *Gramineae*, *Cruciferae*, *Leguminosae*, *Guttiferae*, *Umbelliferae*, *Labiatae*, *Compositae*. Botanists are authorised, however, to use as alternatives the appropriate names ending in *-aceae*. (2) Those who regard the *Papilionaceae* as constituting an independent family may use that name, although it is not formed in the prescribed manner.

To avoid disadvantageous changes in the nomenclature of families by the strict application of the Rules and especially of the principle of priority, a list of names which must be retained as exceptions will be provided (Appendix II).

Art. 24. Names of subfamilies (*subfamiliae*) are taken from the name of one of the genera in the group, with the ending *-oideae*, similarly for tribes (*tribus*) with the ending *-eae*, and for subtribes (*subtribus*) with the ending *-inae*.

Examples of subfamilies: *Asphodeloideae* (from *Asphodelus*), *Rumicoideae* (from *Rumex*); tribes: *Asclepiadeae* (from *Asclepias*), *Phyllanthaceae* (from *Phyllanthus*); subtribes: *Metastelminae* (from *Metastelma*), *Madiinae* (from *Madia*).

§ 3. Names of genera and subdivisions of genera.

Art. 25. Names of genera are substantives (or adjectives used as substantives), in the singular number and written with an initial capital, which may be compared with our family names. These names may be taken from any source whatever, and may even be composed in an absolutely arbitrary manner.

Examples: *Rosa*, *Convolvulus*, *Hedysarum*, *Bartramia*, *Liquidambar*, *Gloriosa*, *Impatiens*, *Manihot*, *Ifloga* (an anagram of *Filago*).

Recommendation X. Botanists who are forming generic names show judgment and taste by attending to the following recommendations: —

- (a) Not to make names very long or difficult to pronounce.
- (b) Not to dedicate genera to persons quite unconnected with botany or at least with natural science nor to persons quite unknown.
- (c) Not to take names from barbarous languages, unless those names are frequently cited in books of travel, and have an agreeable form that is readily adaptable to the Latin tongue and to the tongues of civilised countries.
- (d) To indicate, if possible, by the formation or ending of the name the affinities or analogies of the genus.
- (e) To avoid adjectives used as nouns.
- (f) Not to give to a genus a name whose form is rather that of a subgenus or section (e.g. *Eusideroxylon*, a name given to a genus of *Lauraceae*. This, however, being legitimate, cannot be altered).
- (g) Not to make names by combining words from different languages (*nomina hybrida*).

Art. 26. Names of subgenera and sections are usually substantives resembling the names of genera. Names of subsections and other lower subdivisions of genera are preferably adjectives in the plural number agreeing in gender with the generic name and written with an initial capital, or their place may be taken by an ordinal number or a letter.

Examples. — Substantives: *Fraxinaster*, *Trifolium*, *Adenocilla*, *Euhernandia*, *Archieracium*, *Micromelilotus*, *Pseudinga*, *Heterodra*, *Gymnocitum*, *Neoplatago*, *Stachyotypus*. — Adjectives: *Pleistylae*, *Fimbriati*, *Bibracteolata*.

Recommendations:

XI. Botanists constructing names for subgenera or sections will do well to attend to the preceding recommendations and also to the following: —

(a) To give, where possible, to the principal subdivision of a genus a name which recalls that of the genus with some modification or addition. Thus *Eu* may be placed at the beginning of the generic name when it is of Greek origin, *-astrum*, *-ella* at the end of the name when Latin, or any other modification consistent with the grammar and usages of the Latin language.

Examples: *Eucardamine* (from *Cardamine*), *Trifolium* (from *Trifolium*), *Drabella* (from *Draba*).

(b) To avoid giving to a subgenus or a section the name of the genus to which it belongs, with the ending *-oides* or *-opsis*: but on the contrary to reserve this ending for a section which resembles another genus and by then adding *-oides* or *-opsis* to the name of that other genus, if it is of Greek origin, to form the name of the section.

(c) To avoid taking as the name of a subgenus or section a name which is already in use as such in another genus, or which is the name of a genus.

(d) To avoid in co-ordinated subdivisions of a genus the use of names in the form of a noun together with those in the form of a plural adjective; the former should be used chiefly for subgenera and sections, the latter for subsections, series and subseries.

XII. When it is desired to indicate the name of a subgenus or section (or other subdivision to which a particular species belongs) in connexion with the generic name and specific epithet, the name of the subdivision is placed in parenthesis between the two (where necessary, the rank of the subdivision is also indicated).

Examples: *Astragalus* (*Cycloglottis*) *contortuplicatus*; *Loranthus* (Sect. *Ischnanthus*) *gabonensis*.

§ 4. Names of species (binary names).

Art. 27. Names of species are binary combinations consisting of the name of the genus followed by a single specific epithet. If an epithet consists of two or more words, these must either be united or joined by hyphens. Symbols forming part of specific epithets proposed by Linnaeus must be transcribed.

The specific epithet, when adjectival in form and not used as a substantive, agrees in gender with the generic name.

Examples. — *Cornus sanguinea*, *Dianthus monspessulanus*, *Papaver Rhoeas*, *Uromyces Fabae*, *Fumaria Gussonei*, *Geranium Robertianum*, *Embelia Sarasinorum*, *Atropa Belladonna*, *Impatiens noli-tangere*, *Adiantum Capillus-Veneris*. — *Scandix Pecten* ♀ L. must be transcribed as *Scandix Pecten-Veneris*; *Veronica Anagallis* ∇ L. must be transcribed as *Veronica Anagallis-aquatica*. — *Helleborus niger*, *Brassica nigra*, *Verbascum nigrum*.

Recommendations:

XIII. The specific epithet should, in general, give some indication of the appearance, the characters, the origin, the history or the properties of the species. If taken from the name of a person, it usually recalls the name of the one who discovered or described it, or was in some way concerned with it.

XIV. Names of men and women and also of countries and localities used as specific epithets, may be substantives in the genitive (*Clusii, saharæ*) or adjectives (*Clusianus, dahuricus*). It will be well, in the future, to avoid the use of the genitive and the adjectival form of the same epithet to designate two different species of the same genus: for example *Lysimachia Hemsleyana* Maxim. (1891) and *L. Hemsleyi* Franch. (1895).

XV. In forming specific epithets botanists will do well to have regard also to the following recommendations: —

(a) To avoid those which are very long and difficult to pronounce.

(b) To avoid those which express a character common to all or nearly all the species of a genus.

(c) To avoid using the names of little-known or very restricted localities, unless the species is quite local.

(d) To avoid, in the same genus, epithets which are very much alike, especially those which differ only in their last letters.

(e) Not to adopt unpublished names found in travellers' notes or in herbaria, attributing them to their authors, unless these have approved publication.

(f) Not to name a species after a person who has neither discovered, nor described, nor figured, nor in any way studied it.

(g) To avoid epithets which have been used before in any closely allied genus.

(h) To avoid specific epithets formed of two or more (hyphenated) words.

(i) To avoid epithets which have the same meaning as the generic name (pleonasm).

§ 5. Names of groups below the rank of species (ternary names).

Art. 28. Epithets of subspecies and varieties are formed like those of species and follow them in order, beginning with those of the highest rank. When adjectival in form and not used as substantives they agree in gender with the generic name.

Similarly for subvarieties, forms and slight or transient modifications of wild plants, which receive either epithets or numbers or letters to facilitate their arrangement. The use of a binary nomenclature for subdivisions of species is not admissible. It is permissible to reduce more complicated names to ternary combinations.

Examples: *Andropogon ternatus* subsp. *macrothrix* (not *Andropogon macrothrix* or *Andropogon ternatus* subsp. *A. macrothrix*); *Herniaria hirsuta* var. *diandra* (not *Herniaria diandra* or *Herniaria hirsuta* var. *H. diandra*); *Trifolium stellatum* forma *nanum* (not *nana*). *Saxifraga aizoon* subforma *surculosa* Engl. et Irmsch. is permissible for *Saxifraga aizoon* var. *typica* subvar. *brevifolia* forma *multicaulis* subforma *surculosa* Engl. et Irmsch.

Art. 29. The same epithet may be used for subdivisions of different species, and the subdivisions of one species may bear the same epithet as other species.

Examples: *Rosa Jundzillii* var. *leioclada* and *Rosa glutinosa* var. *leioclada*; *Viola tricolor* var. *hirta* in spite of the existence already of a different species named *Viola hirta*.

Art. 30. Two subdivisions of the same species, even if they are of different rank, cannot bear the same subdivisional epithet, unless they are based on the same type. If the earlier subdivisional name (ternary combination) was validly published, the later one is illegitimate and must be rejected.

Examples: The ternary combinations *Biscutella didyma* subsp. *apula* Briq. and *Biscutella didyma* var. *apula* Halácsy (see Briquet, *Prodr. Fl. Corse*, II, 107, 108: 1913) may both be used because they are based on the same type, and the one includes the other.

The following is incorrect: *Erysimum hieracifolium* subsp. *strictum* var. *longisiliquum* and *E. hieracifolium* subsp. *pannonicum* var. *longisiliquum* — a form of nomenclature which allows two varieties bearing the same name in the same species.

Andropogon Sorghum subsp. *halepensis* var. *halepensis* Hack. is permissible: the two subdivisions bearing the same epithet but representing subordinate grades based on the same type, *A. halepensis* Brot., and thus being synonymous except that the epithet of the lower subdivision is used in a restricted sense.

Recommendations:

XVI. Recommendations made for specific epithets apply equally to epithets of subdivisions of species.

XVII. Special forms (*forma specialis*) are preferably named after the host species; if desired, double names may be used.

Examples: *Puccinia Hieracii* f. sp. *villosi*; *Pucciniastrum Epilobii* f. sp. *Abieti-Chamaenerii*.

XVIII. Botanists should avoid giving a new epithet to any subdivision of a species which includes the type either of a higher subdivisional name or of the specific name. They should either repeat that epithet, with or without a prefix, or use one of the customary epithets, *typicus*, *genuinus*, *originarius*, etc.

Examples: *Andropogon caricosus* subsp. *mollissimus* var. *mollissimus* Hackel; *Arthraxon ciliaris* subsp. *Langsdorffii* var. *genuinus* Hackel.

XIX. Botanists proposing new epithets for subdivisions of species should avoid such as have been used previously in the same genus, whether for species or for subdivisions of other species.

§ 6. Names of hybrids and half-breeds.

Art. 31. Hybrids or putative hybrids between species of the same genus are designated by a formula and, whenever it seems useful or necessary, by a name.

(1) *Sexual hybrids*. The formula consists of the names or specific epithets of the two parents in alphabetical order and connected by the sign $\times$. When the hybrid is of known experimental origin, the formula may be made more precise by the addition of the signs ♀, ♂, the name of the female (seed-bearing) parent being placed first.

The name, which is subject to the same rules as names of species, is distinguished from the latter by the sign $\times$ before the name.

(2) *Asexual hybrids* (graft hybrids, chimaeras, etc.). The formula consists of the names of the two parents in alphabetical order and connected by the sign $+$. The name has a "specific" epithet different from that of the corresponding sexual hybrid (if any), and is preceded by the sign $+$.

Examples of sexual hybrids: $\times$ *Salix caprea* (*Salix aurita* $\times$ *caprea*), *Digitalis lutea* ♀ $\times$ *purpurea* ♂; *Digitalis purpurea* ♀ $\times$ *lutea* ♂.

Example of asexual hybrids: $+$ *Solanum tubigense* (*Solanum nigrum* $+$ *S. Lycopersicum*).

Art. 32. Bigeneric hybrids (i. e. hybrids between species of two genera) are also designated by a formula and, whenever it seems useful or necessary, by a name.

The formula consists of the names of the two parents connected by a sign, as in Art. 31.

The name consists of a new "generic" name usually formed by a combination of the names of the parent genera, and a "specific" epithet. All hybrids (whether sexual or asexual) between the same two genera bear the same "generic" name.

(1) *Sexual hybrids*. In the formula the connecting sign $\times$ is used. The name is preceded by the sign $\times$.

(2) *Asexual hybrids*. In the formula the connecting sign $+$ is used. The name is preceded by the sign $+$. The "specific" epithet is different from that of the corresponding sexual hybrid (if any) between the same species.

Examples of sexual hybrids: $\times$ *Odontioda Boltonii* (*Cochlioda Noezliana* $\times$ *Odontoglossum Vuylstekeae*); $\times$ *Pyrionia Veitchii* (*Cydonia oblonga* $\times$ *Pyrus communis*).

Examples of asexual hybrids: $+$ *Laburnocytisus Adami* (*Laburnum anagyroides* $+$ *Cytisus purpureus*); $+$ *Pyrionia Daniellii* (*Cydonia oblonga* $+$ *Pyrus communis*).

Art. 33. Ternary hybrids, or those of a higher order, are designated like ordinary hybrids by a formula and, whenever it seems useful or necessary, by a binary name. Such as are trigeneric or polygeneric are given new "generic" names usually formed by a combination of the names of the parent genera.

Examples: $\times$ *Salix Straehleri* = *Salix aurita* $\times$ *cinerea* $\times$ *repens* or *S. (aurita* $\times$ *repens)* $\times$ *cinerea*.

Examples of new generic names: $\times$ *Brassaeliocattleya* (composed of the three names *Brassavola*, *Loelia* and *Cattleya*); $\times$ *Pottinara*; $\times$ *Vuylstekeara*.

Recommendation XX. Half-breeds or putative half-breeds may be designated by a name and a formula. Names of half-breeds are intercalated among the subdivisions of a species, and are preceded by the sign $\times$. In the formula the names of the parents are in alphabetical order. When the half-breed is of known experimental origin, the formula may be made more precise by the addition of the signs ♀, ♂, the name of the female (seed-bearing) parent being placed first.