INTRODUCTION

No Rapporteur général having been appointed by the Fifth International Botanical Congress held at Cambridge in 1930, the task of preparing a Synopsis of proposals concerning nomenclature has been entrusted to the undersigned by the Executive Committee of the Amsterdam Congress and the Executive Committee of Nomenclature. An announcement to the effect that 100 copies of all proposals should be sent in before January 1st, 1935, appeared in certain botanical journals, e.g. *Kew Bulletin*, 1934, No. 6 (September) and *Journal of Botany*, 1934, No. 9 (September). Owing to the short notice given and also to the fact that the third edition of the International Rules did not appear until February 1935, many proposals for the amendment of the Rules were not sent in until after the appointed date, but all those hitherto received are included in the Synopsis.

Index of Proposals

1. Adams, J. Some amendments to the International Rules of Botanical Nomenclature. Ottawa, 1934. 8 pp. typescript.

2. Arthur, J. C. Proposed amendments to the International Rules of Nomenclature. [These concern mycological nomenclature.] Lafayette. 1 p.

3. Australian Botanists. Motion for the conservation of the generic name *Haussmannia* F. Muell. (1864), non Dunker (1846, nomen genericum plantae fossilis). Motion for the conservation of four specific names, *Eucalyptus corymbosa* Sm. (1793), *E. tereticornis* Sm. (1793), *E. rostrata* Schlecht. (1847), and *Angophora lanceolata* Cav. (1797). Facsimile of typescript. 1 p.

4. Becherer, A. Vorschläge für die Nomenklatur-Kommission des Botaniker Kongresses in Amsterdam. Genf, 1935. 3 pp. Facsimile of typescript.

5. British Botanists and others. Collected proposals published in *Kew Bull.* 1935, No. 2 (March). Contains 43 consecutively numbered proposals contributed by the following botanists: J. E. Dandy (37), A. W. Exell (38), M. L. Fernald (39), J. S. L. Gilmour (24), M. L. Green (4, 25, 30, 32, 41), J. Lanjouw (35), J. Ramsbottom (5, 16, 33), T. A. Sprague (1, 17, 17 bis, 21, 25, 28, 35, 40, 41), W. T. Stearn (15), G. Tandy (36), Fr. Verdoorn (10, 29), A. J. Wilmott (2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 18, 19, 20, 22, 23, 26, 27, 31, 34, 42).

6. British Palaeobotanists. Proposed additions to the International Rules of Botanical Nomenclature. Extracted from *Journal of Botany*, April 1935, pp. 111–113.

7. Danser, B. H. Proposals concerning the formation, spelling and gender of botanical names. Facsimile of typescript. 3 pp.

8. Dixon, H. N. Proposals concerning Bryological Nomenclature. Extracted from *Revue Bryologique et Lichénologique*, VII, pp. 137–141, 1934 (1935).

9. Dodge, C. W. Proposals for amendment of Article 20 of the International Rules of Nomenclature. Extracted from *Ann. Missouri Bot. Gard.* XXI (1934), 709–712.

10. Hochreutiner, B. P. G. Proposals for the modification of Art. 35, Rec. XXX, and Art. 72. Remarks concerning Art. 38. Genève, 1934. 2 pp. Facsimile of typescript.

11. Jongmans, W., Halle, T. G. and Gothan, W. Proposed additions to the International Rules of Botanical Nomenclature. [These concern palaeobotanical nomenclature.] Heerlen, 1935. 15 pp. 8vo.

12. Rehder, Alfred. Amendments to the International Rules of Nomenclature, ed. 3. Arnold Arboretum, Harvard University, 1934. 4 pp. 8vo.

13. Sampaio, A. J. de. La Méthode de types et la nomen-

clature analogique. Extracted from *Annaes da Academia Brasileira de Sciencias*, t. VI, n. 4, Dez. 1934, pp. 173–179. Consists of a series of examples of the formation of names in accordance with Rec. X, XI.

14. Troup, R. Motions submitted on behalf of various Forestry Institutions and Societies (The Imperial Forestry Institute, Oxford; The Forest Products Research Laboratory, Princes Risborough; The Society of Foresters of Great Britain; The Empire Forestry Association; The Royal English Forestry Society; The Royal Scottish Forestry Society). Oxford? 3 pp. 8vo.

Following the precedent established by the late Dr John Briquet in his admirable *Recueil Synoptique*, each proposal, or series of corresponding proposals, is preceded by the text of the International Rules, ed. 3, which it is proposed to modify, supplement or delete. Not all the documents received were, as prescribed, in the form of additional Articles (or amendments) to the International Rules, ed. 3: some of the contents consisted, not of substantive proposals, but merely of criticism or general remarks, and these could not be included in the Synopsis. For the arguments advanced in favour of the various proposals, reference should be made to the original documents, 100 copies of which have been received for circulation to the appropriate Committees and for distribution at the Congress itself.

All the proposals received were drafted in English, with the exception of those from Prof. B. P. G. Hochreutiner and Dr A. Becherer, which are in French and German respectively. The original French and German text of these is given below, for purposes of record, and also for comparison with the English translation given in the Synopsis.

VORSCHLAG ZUR ABÄNDERUNG DES ART. 34, VON A. BECHERER

Art. 34. Unterabteilungen eines Bastardes, d.h. verschiedene hybride Formen desselben Ursprunges (.....) unter einer Sammelgruppe vereinigt, heissen *subhybridae*. Man ordnet die *subhybridae* unter dem binären Namen des Bastardes in derselben Weise an wie die Unterarten oder Varietäten einer Art unter dem Artnamen.

Es ist unzulässig, für verschiedene Formen einer Bastardgruppe besondere binäre Namen zu gebrauchen.

Beispiele: × *Mentha niliaca* subhybr. *Lamarckii* (= eine Form des pleomorphen Bastardes × *M. niliaca* = *M. longifolia* × *rotundifolia*).

. . . . . .

Beispiel für den Zusatz: Der Name × *Asplenium Guichardii* R. Litardière in *Bull. Géogr. Bot.* XXI (1911), 76 für eine Form des Bastardes *A. foresiense* × *Trichomanes* ist vom Autor zu Unrecht als solcher publiziert worden. Der binäre Name für die Bastardgruppe ist: × *A. Pagesii* R. Litardière in *Bull. Géogr. Bot.* XX (1910), 204; an diesen Namen kann angeschlossen werden: × *A. Pagesii* subhybr. *Guichardii*.

PROPOSITIONS PAR B. P. G. HOCHREUTINER

Art. 35, *2me alinea.* "Quand on peut rattacher les (noms horticoles) à une espèce, à une sous-espèce ou à une variété botanique, le nom de fantaisie suivra le bi- ou le trinôme", Le soussigné propose d'ajouter "et sera precédé de l'indication *subsp. hort.* ou *var. hort.* ou bien *hort.* tout court".

"Exemple: *Pelargonium zonale* var. hort. Mrs Pollock."

Section 13: *Orthographe des noms.*

La Rec. XXX des Règles de Vienne a été supprimée.... Nous proposons de la rajouter, avec la rédaction suivante:

"On doit user avec réserve de la faculté de corriger un

nom, particulièrement si le changement doit porter sur la première syllabe et surtout sur la première lettre du nom."

[Included as Art. C 70, the form (*doit*) being that of a rule, not of a recommendation.]

Art. 72. Le genre grammatical des noms génériques est fixé par l'auteur. Si celui-ci néglige de le faire, c'est l'auteur qui le suit immédiatement qui a le droit de choisir.

Certain proposals which were rejected at the Fifth International Botanical Congress, Cambridge, 1930, have been brought forward again. Art. 21 bis proposes the introduction of *Nomina specifica conservanda*, and General Motion II asks that the question should be brought forward for discussion. A long discussion took place at Cambridge on this subject, and the *principle* of *Nomina specifica conservanda* was rejected by show of hands without the necessity for a ballot (see Briquet, *Recueil Synoptique*, 12–14, Art. B 20, E 20; *Avis Préalable*, 9; *Rep. Bot. Congr. Cambridge*, 1930, 570–575). In accordance with a notice issued by the Executive Committee of the Congress, "Only motions relating to new points which were not settled at previous Congresses can be presented. Motions not complying with these conditions will not be discussed unless the Amsterdam Congress decides to take them into consideration".

The *principle* embodied in Art. A 19 was also the subject of an extended discussion at Cambridge, and was rejected by 239 votes against 158 (see Briquet, *Recueil Synoptique*, 12, Art. 19 bis; *Avis Préalable*, 8, Art. 19 bis; *Rep. Bot. Congr. Cambridge*, 1930, 567–570). The *method* now proposed of giving effect to that principle is, however, different.

Attention should be drawn to the non-inclusion in International Rules, ed. 3, of an Appendix for *Nomina dubia*. The title "Appendix VI. Nomina dubia" was listed on p. 34 of "Nomenclature Proposals by British Botanists" (1929), but no provision was made for such an Appendix in Art. 68 of

the British Proposals, dealing with *Nomina dubia*, adopted at Cambridge and now forming Art. 63 of the International Rules. This seems to the writer to justify the non-inclusion of the Appendix concerned. On the other hand, Messrs Ramsbottom (Art. A 73) and Wilmott (sub Appendix "IX") apparently contemplate the inclusion of such an Appendix. In this Synopsis the Appendices have been numbered in accordance with International Rules, ed. 3. The correct position for "Regulations for determining types in fossil plants" seems to be as Appendix I bis, rather than Art. 18 bis, 18 ter.

The writer tenders his sincere thanks to the Director, Royal Botanic Gardens, Kew, for affording full facilities for the preparation of this Synopsis; to Miss M. L. Green, for her collaboration in the difficult task of arranging the subject-matter; and to the Executive Committee of the International Botanical Congress, Cambridge (1930) for defraying the cost of printing the Synopsis.

T. A. SPRAGUE

KEW,
March 13th, 1935.

I

SPECIAL PROPOSALS CONCERNING THE TEXT OF THE RULES AND RECOMMENDATIONS

CHAPTER I. GENERAL CONSIDERATIONS AND GUIDING PRINCIPLES (ART. 1—9)

ART. 2. The precepts on which this precise system of botanical nomenclature is based are divided into *principles*, *rules* and *recommendations*.... 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. A 2, line 7. Insert the word "especially" before "in future nomenclature".

(Sprague, Brit. Bot. 1.)

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. A 3. Add to this article the words "They should be applicable to the names of all plant-groups already in existence as well as to those to be formed in the future."

(Adams, Art. 3.)

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 as far as possible for new names.

ART. A 7. The scientific names of all plant-groups, whatever

their origin, have a recognized Latin termination. Names of Greek origin should be latinized according to definite rules.

(Adams, Art. 7.)

Chapter II. CATEGORIES OF TAXONOMIC GROUPS AND THE TERMS DENOTING THEM

(Art. 10—14, Rec. I, II)

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*).

Art. A 11. Add the following paragraphs:

"*a.* Since the species, and consequently the genera of fossil plants, are usually founded on specimens of detached organs, and the connection between two or more of these organs can be proved in special and rare cases only, and much uncertainty exists in the reconstruction of many fossil species, *organ genera* and *artificial genera* (*form genera*) have to be distinguished as categories within which species are recognized.

"An *organ genus* is a genus established for detached parts belonging to the same morphological category. An *artificial genus* (*form genus*) is a genus which is known to contain generically unrelated species, but which is retained as a matter of convenience in order to provide a possibility of giving binominal names to specimens of uncertain taxonomical relationship.

"*Note* 1. *Organ genera.* In describing organ genera it should be clearly indicated for which kind of organ the genus is established. It is desirable, when possible, that the name

indicates the category of the organ. (For leaves a combination with *phyllum*, for fructifications with *carpus*, *theca*, etc.)

"*Note* 2. *Artificial genera* (generally known as *form genera* in the palaeobotanical literature) are as a rule such organ genera which have been proved to contain species that are not generically related in the ordinary taxonomic sense. An *organ genus* becomes an *artificial* (*form*) *genus* on the forthcoming of proof to that effect.

"Example (*a*): The most common artificial genera are those established by Ad. Brongniart in order to provide a system for naming sterile leaves of Fern-like plants, the genera being founded on characters from the shape and venation, which in recent Ferns recur in different genera and even families.

"Well-known examples of such genera are, for instance, *Pecopteris* and *Sphenopteris*. These were founded on the characters of the sterile leaves, but various species have later been found with sporangia. For these fructifications organ genera have been established, and it has been proved that each of the genera of sterile leaves contains species which, in regard to their fructifications, belong to different organ genera. The names *Pecopteris* and *Sphenopteris* must, however, be retained as artificial genera to provide a place for those species—still forming the majority—which are only known in the sterile condition.

"*b*. As soon as the connection between two provisional genera of fossil plants, whether organ genera or artificial (form) genera, has been proved, a new generic name, *combination genus*, should as a rule be introduced for the combination (comp. Art. 16, footnote).

"Similarly if an organ (e.g. a fructification) has been described independently, and it is proved afterwards that one or more species belonging to some form genus bear this same organ, the introduction of a combination genus is necessary.

"Example (*b*): Parts of the same natural species have been described under the following generic names:

Form genus:

Sphenopteris (*Hoeninghausi*).

Organ genera:

Lyginodendron (*Lyginopteris*).
Lagenostoma.
Calymmatotheca.
Kaloxylon.

As combination genus could be used f.i.:

Lagenopteris.

"*c.* In descriptions or lists both the *artificial genera* (*form genera*) and *organ genera* must be mentioned. It is of little importance whether the author puts the artificial genus (form genus) first or the organ genus.

"Example (*c*): In some coal-mines *Pecopteris plumosa* is found as sterile and fertile leaves. In this case the plant must be quoted as:

Pecopteris (*Dactylotheca*) *plumosa,*
or *Dactylotheca* (*Pecopteris*) *plumosa,*
but never as *Dactylotheca plumosa.*"

(Jongmans, Halle, Gothan, Art. 11.)

ART. B 11. Add the following paragraph:

"Since most of the names of fossil plants are founded on specimens of detached organs, and uncertainty is thus involved in the complete reconstruction of many fossil species, organ genera and artificial genera may be distinguished as categories within which species are recognized."

(British Palaeobotanists, Art. 11.)

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*).

ART. A 14. In line 2 delete "modification or", and replace the second use of the word "modification" by the word "subdivision".

(Wilmott, Brit. Bot. 2.)

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. A 15. For this article the following substitute is suggested:

"The name given to a plant-group is primarily for the purpose of indicating some outstanding character of the group as well as being necessary for reference."

(Adams, Art. 15.)

ART. 16. Each group with a given circumscription, position and rank can bear only one valid name,[1] the earliest that is in accordance with the Rules of Nomenclature.

ART. A 16. Footnote. Add the following paragraphs:

"In *organ genera* and *artificial* (*form*) *genera* of fossil plants the valid name is the earliest published name used for a group

[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.

of specimens with the same position and rank, and this must be applied only to those organs of the plants for which the name was originally used; isolated organs of a different category must be placed in a different *organ genus* or *artificial (form) genus*.

"If, in the course of reconstruction of fossil plants, two *organ genera* or *artificial (form) genera* are found to have been applied to parts of the same plant, they are still retained in their original sense and under their original names. For the reconstructed plant (combination) a new genus (*combination genus*), more closely comparable to a natural taxonomic group, should, as a rule, be established under a new name (comp. Art. 57 ter)."

(Jongmans, Halle, Gothan, Art. 16.)

ART. B 16. Footnote. Add the following paragraph:

"In organ genera and artificial genera of fossil plants the valid name is the earliest published name used for a specimen or group of specimens with the same limited circumscription, position, and rank, and this must be applied only to those organs of the plant for which the name was originally used; isolated organs of a different category must be placed in a different organ genus or artificial genus."

(British Palaeobotanists, Art. 16.)

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.

ART. 18 bis. In fossil plants the types are determined according to the following rules (*a–c*):

a. The *type of an organ genus* is the first described species which shows the characters necessary for distinguishing the genus from other groups. The *type of a species* is the first described and figured specimen showing all the characters necessary for distinguishing the species from other groups. If the specimen has been lost, the first figure showing the same characters should be taken as the type. If several specimens have been simultaneously figured without indication of the type, the specimen or figure which shows most clearly and fully the essential characters should be taken.

b. In describing new species it is necessary to mention which specimen is regarded as the type.

A new species described *after 1 January 1936* is not valid unless the type is specially noted.

It is desirable to indicate in which museum or collection the type is to be found.

c. If it is shown (by subsequent re-description or re-figuring) that the first description or figure of the type specimen of a species is incorrect or indistinct, the name attached to that specimen is not valid. By correct re-description or re-figuring *the name is validated but takes the date* (*and the author*) *of the correct description or figure.*

Example: Jaeger described *Marantoidea* in sterile condition, and did not mention or figure the marginal anastomoses of the nerves.

1858 Schenk refers it to *Thaumatopteris*, on account of the fructification.

1865 As this name is not correct, Heer proposes the name *Danaeopsis* (sterile and fertile).

1865 Schenk publishes a figure of this new genus.

1904 Leuthardt discovers and figures the marginal anastomoses.

The right name is *Danaeopsis* (Heer, in Schenk, emend.) Leuthardt.

(Jongmans, Halle, Gothan, Art. 18.)

ART. 18 ter. The type of the name of an organ genus is the first species described as showing all the characters on which the group was founded. The type of the name of a species is the first specimen described as showing all the essential diagnostic characters; if the specimen has been lost, the first description accompanied by a clear and satisfactory figure should be taken as the type. Where several specimens have been simultaneously described and figured without indication as to which is to be regarded as the type, the example or figure which shows most clearly and fully the essential characters should be taken.

(British Palaeobotanists, Recommendations, Chap. III, Sect. 2.)

[Art. 18 bis and Art. 18 ter consist of regulations for determining types in fossil plants, and their correct position is accordingly after "Appendix I: Regulations for determining types" [in recent plants], as Appendix I bis. Art. 18 ter was proposed as a Recommendation. It is here included as Art. 18 ter, for convenience of comparison with Art. 18 bis, and also because the phraseology as far as the words "diagnostic characters" is that of a Rule, not of a Recommendation.]

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. A 19. Add the following paragraph:

"The works listed in Appendix IX, in which works nomenclature contrary to or in conflict with that legitimized by these Rules is used, are to be regarded as not validly published, although they appeared subsequently to the dates given in Art. 20."

(Wilmott, Brit. Bot. 3.)

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 homocysteae*, 1892–93 (Gomont, *Monographie des Oscillariées*, in *Ann. Sci. Nat. Bot.* sér. 7, VI, 91, VII, 263).—*Nostocaceae heterocysteae*, 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 Desmidieae*).—*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. A 20 (*e*). After the word "*Uredinales*" insert "1753 (Linnaeus, *Species Plantarum*, ed. 1)".

(Arthur, Art. 19.)

ART. B 20 (*f*) to read as follows:

"(*f*) *Fungi caeteri*, 1821 (Fries, *Systema mycologicum*)."

(Dodge, Art. 20, I.)

ART. C 20. After (*d*) insert:

"(*e*) *Fungi: Uredinales*, 1753 (Linnaeus, *Species Plantarum*, ed. 1).

"(*f*) *Fungi: Ustilaginales* and *Gasteromycetes*, 1801 (Persoon, *Synopsis methodica Fungorum*)."

Change "(*f*), (*g*) (*h*)" to "(*g*) (*h*) (*i*)".

See J. C. Arthur in *Journ. Arnold Arb.* XV, 263–265 (1934).

(Rehder, Art. 20.)

ART. D 20. Add the following paragraph at the end of the Article:

"The two volumes of Linnaeus, *Species Plantarum*, ed. 1 (1753), which appeared in May and August, 1753, respectively, are treated as having been published simultaneously on the former date."

"Example: The generic names *Thea* L. *Sp. Pl.* ed. 1, I (May 1753) and *Camellia* L. *Sp. Pl.* ed. 1, II (Aug. 1753) are treated as having been published simultaneously in May 1753. Under Art. 56, the combined genus bears the name *Camellia*, since Sweet (*Hort. Suburb. Lond.* 1818, 157), who was the first to write the two genera, chose that name, citing *Thea* as a synonym."

(Green, Brit. Bot. 4.)

ART. E 20. For "at the following dates" read "with the following works".

(Ramsbottom, Brit. Bot. 5.)

ART. F 20. Insert the following paragraph at the end of Article 20:

"It is permissible to recognize the Friesian subgenera (*tribus*) of *Agaricus* (Fries, *Syst. Myc.* I, 1–314: 1821) as genera, citing only Fries as the author of species so long as they are retained in the genus corresponding to the *tribus* in which Fries placed them."

(Dodge, Art. 20, II.)

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.

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 groups.

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 bear-

ing 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.

ART. A 21. For the first part of this article substitute the following words: "However, to avoid disadvantageous changes in the nomenclature of families, genera, and species by the strict application of the Rules of Nomenclature, etc."

(Adams, Art. 21.)

ART. 21 bis. To avoid disadvantageous changes in the nomenclature of species of Phanerogamae 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 shall provide lists of specific names which must be retained as exceptions. These names shall concern only a limited number of species, and especially those of trees and other plants which are extensively cultivated, or which are otherwise of economic importance. The names to be conserved shall be by preference those which have been in general use in the fifty years immediately preceding the Fifth International Botanical Congress, Cambridge, 1930. The lists of these names shall form an appendix to the Rules.

Note 1. These lists of conserved names shall remain permanently open for additions.

Note 2. Any proposal of a name for conservation must be accompanied by a detailed statement of the case for its conservation.

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 re-united with another group bearing a legitimate name. In the event of union or re-union

with another group, the earlier of the two competing names is adopted in accordance with Art. 56.

Examples:

Nomina conservanda	Nomina rejicienda
Picea excelsa	*Picea Abies*
Artocarpus integrifolia	*Artocarpus integra*
Ulmus nitens	*Ulmus foliacea*
Ulmus campestris	*Ulmus procera, U. anglica*
Betula verrucosa	*Betula alba, B. pendula*
Cedrus Libani	*Cedrus libanotica*
Pseudotsuga Douglasii	*Pseudotsuga taxifolia*
(Troup, Art. 21 B.)	[See Art. 73 ter.]

Note. Three members of the Committee on Australian Botanical Nomenclature are desirous of reviving the proposal to place well-known scientific names of certain Australian economic trees on a list of "nomina specifica conservanda". Some of the principal ones are:

Nomina conservanda	Nomina rejicienda
Eucalyptus corymbosa, Smith (1793)	*Eucalyptus gummifera*, Hochr. *Metrosideros gummifera*, Gaertn. (1788)
E. tereticornis, Smith (1793)	*E. umbellatum*, Domin. *Leptospermum umbellatum*, Gaertn. (1788)
E. rostrata, Schlechtd. (1847)	*E. camaldulensis*, Dehnh. (1832)
Angophora lanceolata, Cav. (1797)	*Angophora costata*, Domin. *Metrosideros costata*, Gaertn. (1788)

(Australian Botanists, Obs.)

Section 4. *Nomenclature of the Taxonomic Groups according to their Categories* (Art. 23–35, Rec. VIII–XX)

REC. 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 *-ineae*. 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: *Bromeliineae* (from *Bromeliaceae*), *Malvineae* (from *Malvaceae*), *Tricoccae*, *Enantioblastae*.

REC. A IX. This should be completed with a rule for the alteration of the ending *-alis* into *-aris*, according to Latin grammar.

(Danser, Rec. IX.)

REC. B IX. For "are designated preferably by" read "are preferably taken from".

(Wilmott, Brit. Bot. 6.)

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-Linnaean genus).

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 authorized, 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. A 23. The name of a family is based on the stem of one of its present genera to which the termination *-aceae* is added. The genus so selected should preferably be one with a large number of species or of wide distribution.

(Adams, Art. 23.)

ART. B 23. Replace the first sentence by the following: "Names of families (*familiae*) are formed from the accepted name of the type-genus by adding the suffix *-aceae* to the stem of the generic name."

(Wilmott, Brit. Bot. 7.)

ART. C 23. Alter the wording to read: "Names of families are taken from the name or ancient name of one of their present genera, and end in *-aceae*." [Proposed if Art. B 23 and A 24 are rejected.]

(Wilmott, Brit. Bot. 8.)

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*.

ART. A 24. Replace the first sentence by the following: "Names of subfamilies (*subfamiliae*) are formed from the names of their type-genera by adding the suffix *-oideae* to the stem of the generic name; similarly those of tribes (*tribus*) by adding the suffix *-eae*, and of subtribes (*subtribus*) by adding *-inae*."

(Wilmott, Brit. Bot. 9.)

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 be composed in an absolutely arbitrary manner.

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

ART. A 25 [to replace Art. 25, Art. 67 (4), Art. 70]. The name of a genus is a substantive, singular in number, and composed of a single word which is written with an initial capital.

(Adams, Art. 25.)

ART. 25 bis. Compound generic names of Greek origin in which the final element is based on the same Greek word should have a similar termination.

(Adams, Art. 25*a*.)

ART. 25 ter [replacing Recommendation XXXIX]. Generic names based on personal names should preserve the original spelling of the name. Those ending in a consonant should add the letters *-ia* to the name, those ending in the letter *-a* should insert the letter *i* before the letter *a*, while those ending in any other vowel should add the letter *a* only. Genera based on names derived from Greek mythology should be placed on a special list of *nomina conservata*.

(Adams, Art. 25*b*.)

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

. . . . . .

(*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*).

REC. A X (*e*), (*f*), (*g*).

(*e*) to be altered in the following way: "To avoid *Latin* adjectives used as nouns (e.g. *Impatiens*, *Gloriosa*, *Mirabilis*, *Bistorta*)."

(*f*) to be cancelled.

(*g*) Replace "*hybrida*" by "*hibrida*".

(Danser, Rec. X (*e*), (*f*), and Rec. XXXV.)

REC. B X. Add: "(*h*) To give a feminine form to all personal generic names, whether they commemorate a man or a woman."

(Fr. Verdoorn, Brit. Bot. 10.)

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*, *Trifoliastrum*, *Adenoscilla*, *Euhermannia*, *Archieracium*, *Micromelilotus*, *Pseudinga*, *Heterodraba*, *Gymnocimum*, *Neoplantago*, *Stachyotypus*.—Adjectives: *Pleiostylae*, *Fimbriati*, *Bibracteolata*.

ART. A 26. Add at the end of the article: "In co-ordinated subdivisions names in the form of a noun cannot be used together with those in the form of a plural adjective; they should be either nouns in the singular or adjectives in the plural."

(Rehder, Art. 26.)

REC. 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*), *Trifoliastrum* (from *Trifolium*), *Drabella* (from *Draba*).

. . . . . .

(*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.

REC. A XI (*a*). Delete the provision concerning the prefix *Eu*.

(Danser, Rec. XI (*a*).)

REC. B XI. Omit the paragraph under "(*d*)"—see Art. A26.

(Rehder, Rec. XI.)

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*.

ART. A 27 [replacing Art. 27 and Recommendations XLIII and XLIV]. The name of a species should be a single word,

either an adjective singular in number, and agreeing in gender with that of the genus, or the genitive case of a substantive. The name adopted should be such as to indicate some characteristic feature of the plant whether it be morphological, ecological, geographical, etc. The specific name should not be such as duplicates the meaning of the generic name.

(Adams, Art. 27.)

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.

. . . . . .

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

ART. A 31. (2) Example of asexual hybrid: delete the "*S.*" before "*Lycopersicum*".

(Wilmott, Brit. Bot. 11.)

ART. 34. When different hybrid forms of the same parentage (pleomorphic hybrids; combinations between different forms of a collective species, etc.) are united in a collective group, the subdivisions are classed under the binary name of the hybrid, like the subdivisions of a species under that of a species.

Examples: × *Mentha niliaca* β *Lamarckii* (= *M. longifolia* × *rotundifolia*). The preponderance of the characters of one or other parent may be indicated in the formulae in the following manner: *Mentha longifolia* > × *rotundifolia*, *M. longifolia* × ≲ *rotundifolia*. The participation of a particular variety may also be indicated: e.g. *Salix caprea* × *daphnoides* var. *pulchra*.

ART. A 34. Subdivisions of a hybrid, that is different hybrid forms of the same origin (pleomorphic hybrids; combinations between different forms of a collective species, etc.),

united in a collective group, are called *subhybridae*. The *subhybridae* are classed under the binary name of the hybrid in the same way as subspecies or varieties of a species are classed under the specific name. It is inadmissible to use special binary names for different forms of a hybrid group.

Examples: × *Mentha niliaca* subhybr. *Lamarckii* (= a form of the pleomorphic hybrid × *M. niliaca* = *M. longifolia* × *rotundifolia*).

. . . . . .

Additional example: The name × *Asplenium Guichardii* R. Litardière in *Bull. Géogr. Bot.* XXI (1911), 76, for a form of the hybrid *A. foresiense* × *Trichomanes* was incorrectly published by its author. The binary name for the hybrid group is: × *A. Pagesii* R. Litardière in *Bull. Géogr. Bot.* XX (1910), 204; to this name can be attached: × *A. Pagesii* subhybr. *Guichardii*.

(Becherer, Art. 34.)

ART. 35. Forms and half-breeds among cultivated plants receive fancy epithets preferably in common language, as different as possible from the Latin epithets of species or varieties. When they can be attached to a species, a subspecies, or a botanical variety, this is indicated by a succession of names.

Examples: *Pelargonium zonale* Mrs Pollock.

ART. A 35. Add: "The fancy epithet will be preceded by the indication 'subsp. hort.', or 'var. hort.', or merely 'hort.'"

"Example: *Pelargonium zonale* var. hort. Mrs Pollock."

(Hochreutiner, Art. 35.)

Add to Section 4 of Chapter III an additional subsection:

§ 8. *Names of Artificial Genera of Fossil Plants*

ART. A 35 bis. An artificial genus is an organ genus, sanctioned by long usage, which is known to contain unrelated species grouped together for convenience and to which specimens may be provisionally referred in the absence of

characters indicating their taxonomic relationship. The names of such groups must be used only with their original circumscription and no subsequent alteration of the diagnostic characters is permissible. They are to be regarded as having no type-species. Owing to the mixed and uncertain nature of these artificial genera they should not be associated in larger groups comparable to families.

Note. A list of artificial genera will be provided.

(British Palaeobotanists, Chap. III, Sect. 4, § 8.)

ART. B 35 bis. 1 *a*. An *artificial* (*form*) *genus* in palaeobotany is a former *organ genus*, sanctioned by long usage, which is known to contain unrelated species grouped together as a matter of convenience and to which specimens may be provisionally referred in the absence of characters indicating their taxonomic relationship; the names of such groups must only be used with their original circumscription and no subsequent alteration of the diagnostic characters is possible; they are to be regarded as having no type-species. Owing to the mixed and uncertain nature of these artificial (form) genera of fossil plants, such genera should not be associated in larger groups comparable to families. (Suggested by British palaeobotanists.)

A list of artificial form genera will be provided.

Examples (1 *a*): *Sphenopteris*, *Pecopteris*, *Cladophlebis*.

1 *b*. When necessary they may be associated in provisional or artificial larger groups ending, in agreement with palaeobotanical custom, in syllables different from those used for ordinary taxonomic groups.

Example (1 *b*): The artificial genera *Alethopteris* and *Lonchopteris* may, as hitherto, be associated in the provisional group *Alethopterides*.

2. In the same way as for fossil plants the *organ genus* and *combination genus* must be introduced, we can have *organ families* and *combination families*.

Example (2): Among the *Lycopodiales ligulatae*, *Lepidodendron*, *Bothrodendron*, *Lepidophloios* are organ genera for stems, *Lepidostrobus*, *Bothrostrobus* for fructifications, etc.

The organ genera for the stems can be combined to the organ family *Lepidodendraceae*, those for the strobili to the organ family *Lepidostrobaceae*.

Both organ families have been combined to a combination family for which for practical reasons the name of the organ family *Lepidodendraceae* is used.

(Jongmans, Halle, Gothan, Art. 23.)

[The two preceding articles are placed in Chap. III dealing with *names*, rather than in Chap. II dealing with *categories of groups*, because their provisions are mainly concerned with the *application of names*. They might have been inserted as Art. 18 bis, but as the names concerned differ from all those dealt with in Art. 18–35 in being names of *artificial groups*, the position suggested by the British Palaeobotanists seems to be the best.]

Section 5. *Conditions of Effective Publication* (Art. 36)

ART. 36. Publication is effected, under these Rules, by sale to the general public or to botanical institutions, of printed matter or indelible autographs, or by distribution of these to specified representative botanical institutions.

ART. A 36. Insert "and palaeobotanical" between "representative botanical" and "institutions".

(Jongmans, Halle, Gothan, App. VII.)

Note. For proposed provisional list of representative botanical institutions see Appendix VI.

Section 6. *Conditions and Dates of Valid Publication of Names* (Art. 37–45, Rec. XXI–XXIX)

ART. 37. A name of a taxonomic group is not validly published unless it is both (1) effectively published (see Art.

36), and (2) accompanied by a description of the group or by a reference to a previously and effectively published description of it.

ART. A 37. Add the following paragraph:

"In fossil plants the name of a genus, or of a group of higher rank, published without being accompanied by a description or by a reference to a previous description, but characterized by enumeration of the groups of lower rank included in it, may be considered as validly published if the publication took place before January 1, 1936. After that date a description must be given."

(Jongmans, Halle, Gothan, Art. 37.)

[*Note.* This affects Art. 41.—T.A.S.]

ART. 38. From January 1, 1935,[1] names of new groups of recent plants, the Bacteria excepted, are considered as validly published only when they are accompanied by a Latin diagnosis.

Note. This article legitimizes names of new groups effectively published from 1908 to 1934 with diagnoses in modern languages.

(See II. General Motion, No. III.]

ART. 39. From January 1, 1912, the name of a new taxonomic group of fossil plants is not considered as validly published unless it is accompanied by illustrations or figures showing the essential characters, in addition to the description, or by a reference to a previously and effectively published illustration or figure.

ART. A 39. Delete Art. 39.

(Jongmans, Halle, Gothan, Art. 39.)

[1] Owing to the delay in publication of the Rules the Editors have put forward the date from 1932 (see statement by the Rapporteur général; Fifth International Botanical Congress Report, p. 591: 1931).

ART. 41. A group is not characterized and the publication of its name is not validated, merely by mention of the subordinate groups included in it: thus the publication of the name of an order is not validated by mention of the included families; that of a family is not validated by mention of the included genera; that of a genus is not validated by mention of the included species.

[*Note.* See Art. A 37, which proposes an exception to Art. 41.—T.A.S.]

ART. 42. A name of a genus is not validly published unless it is accompanied (1) by a description of the genus, or (2) by the citation of a previously and effectively published description of the genus under another name; or (3) by a reference to a previously and effectively published description of the genus as a subgenus, section or other subdivision of a genus.

An exception is made for the generic names published by Linnaeus in *Species Plantarum*, ed. 1 (1753) and ed. 2 (1762–63), which are treated as having been validly published on those dates (see Art. 20).

ART. A 42. Add the following paragraph:

"From January 1, 1936, the name of a genus (*Organ genus, Combination genus*) of fossil plants is not considered as validly published unless it is effectively published and is accompanied by figures (or by references to such figures if already existing) showing the essential characters, in addition to the description."

(Jongmans, Halle, Gothan, Art. 42.)

ART. 43. The name of a monotypic new genus based on a new species is validated: (1) by the provision of a combined generic and specific description (*descriptio generico-specifica*), or (2) by the provision of a plate with analyses showing essential characters; but this applies only to plates and generic names published before January 1, 1908.

ART. A 43. Add the following paragraphs:

"The name of a *monotypic genus* of fossil plants described before January 1, 1936, is validated by the provision of a combined generic and specific description accompanied by a figure showing the essential characters. After that date the author must also give a description of the genus indicating the difference from other genera."

"When other species are added to an undefined or ill-defined monotypic organ genus an emended generic diagnosis should be provided. The name of the later author must be added."

(Jongmans, Halle, Gothan, Art. 43.)

ART. B 43. Interchange the comma near the end of the third line with the semicolon in the fifth line.

(Wilmott, Brit. Bot. 12.)

ART. 44. The name of a species or of a subdivision of a species is not validly published unless it is accompanied (1) by a description of the group; or (2) by the citation of a previously and effectively published description of the group under another name; or (3) by a plate or figure with analyses showing essential characters; but this applies only to plates or figures published before January 1, 1908.

ART. A 44. Add the following paragraph:

"The name of a *species* or subdivision of a species of fossil plants is not considered as validly published unless it is accompanied by a figure showing the essential characters in addition to the description."

(Jongmans, Halle, Gothan, Art. 44.)

ART. 45. The date of a name or of an epithet is that of its valid publication (see Art. 19, 37). For purposes of priority, however, only legitimate names and epithets published in legitimate combinations are taken into consideration[1] (see

[1] A legitimate name or epithet is one that is strictly in accordance with the Rules.

Art. 60). In the absence of proof to the contrary, the date given in the work containing the name or epithet must be regarded as correct.

On and after January 1, 1935,[1] only the date of publication of the Latin diagnosis can be taken into account for new groups of recent plants.

For new groups of fossil plants, on and after January 1, 1912, the date is that of the simultaneous publication of the description and figure (or if these are published at different dates, the later of the two dates).

ART. A 45. Add the following paragraph:

"For species or subdivisions of species of fossil plants, on and after January 1, 1936, the date is that of the simultaneous publication of the descriptions and figure (or, if these are published at different dates, the later of the two dates)."

(Jongmans, Halle, Gothan, Art. 45.)

Section 7. *Citation of Authors' Names for Purposes of Precision* (Art. 46–49, Rec. XXX–XXXII)

SECTION A 7. Change title of Sect. 7 to: "Citation of Authors' names for purposes of precision and exact citation of literature."

(Rehder, Sect. 7.)

ART. 47. An alteration of the diagnostic characters or of the circumscription of a group does not warrant the citation of an author other than the one who first published its name.

When the changes have been considerable, an indication of their nature, and of the author responsible for the change, is added, the words: *mutatis charact.*, or *pro parte*, or *excl. gen.*, *excl. sp.*, *excl. var.*, or some other abridged indication being employed.

Examples: *Phyllanthus* L. em. (emendavit) Müll. Arg.;

[1] See note to Art. 38.

Myosotis L. pro parte, R. Br.; *Globularia cordifolia* L. excl. var. (em. Lam.).

ART. A 47. Insert after "circumscription of a group": "without change of type".

(Rehder, Art. 47.)

ART. 47 bis [replacing Art. 62]. When a name which is neither *nomen dubium* nor *nomen confusum* (see Art. 63 and 64) has become a source of confusion or error owing to its use with different meanings (*nomen ambiguum*), its use must be precised by the additional citation responsible for the usage which is at the time being employed.

(Wilmott, Brit. Bot. 13.)

ART. 49. When a genus or a group of lower rank is altered in rank but retains its name or epithet, the original author must be cited in parenthesis, followed by the name of the author who effected the alteration. The same holds when a subdivision of a genus, a species, or a group of lower rank, is transferred to another genus or species with or without alteration of rank.

Examples: *Medicago polymorpha* L. var. *orbicularis* L. when raised to the rank of a species becomes *Medicago orbicularis* (L.) All. *Anthyllis* sect. *Aspalathoides* DC. raised to generic rank, retaining the name *Aspalathoides*, is cited as *Aspalathoides* (DC.) K. Koch. *Sorbus* sect. *Aria* Pers., on transference to *Pyrus*, is cited as *Pyrus* sect. *Aria* (Pers.) DC. *Cheiranthus tristis* L. transferred to the genus *Matthiola* becomes *Matthiola tristis* (L.) R. Br.

ART. A 49. In the first sentence delete all after "followed" and insert instead "by an indication of the original use of the name or epithet". In the examples, for "*Medicago orbicularis* (L.) All." read "*Medicago orbicularis* (L.: *M. polymorpha* var.)"; for "*Aspalathoides* (DC.) K. Koch" read "*Aspalathoides* (DC.: *Anthyllis* sect.)"; for "*Pyrus* sect. *Aria* (Pers.) DC."

read "*Pyrus* sect. *Aria* (Pers.: *Sorbus* sect.)"; for "*Matthiola tristis* (L.) R. Br." read "*Matthiola tristis* (L.: *Cheiranthus* sp.)".

(Wilmott, Brit. Bot. 14.)

Rec. XXXII. The citation of authors, earlier than the starting point of the nomenclature of a group, is indicated, when considered useful or desirable, preferably between brackets or by the use of the word *ex*. This method is especially applicable in mycology when reference is made to authors earlier than Fries or Persoon.

Rec. XXXII bis. When citing in synonymy a name invalidated by an earlier homonym the citation should be followed by the author of the earlier homonym preceded by the word "non", preferably with the date of publication added. In some instances it will be advisable to cite also any later homonym or homonyms.

Examples: *Ulmus racemosa* Thomas in *Am. Journ. Sci.* XIX, 170 (1831); non Borkh. (1800).—*Lindera* Thunb., *Nov. Gen.* III, 44 (1773); non Adanson (1763).—*Bartlingia* Brongn. in *Ann. Sci. Nat.* sér. I, X, 373 (1827); non Reichenb. (1824), nec F. v. Muell. (1877).

(Rehder, Rec. XXXII bis.)

Rec. A XXXII ter. When citing in synonymy a misapplication or shifting of a name to another type the name of the original author should be followed by the name of the author who misapplied or shifted the name preceded by "sensu" or "secundum (sec.)" and at the end of the citation the original author should be cited preceded by "non", preferably with the date of the original publication added.

Examples: *Pinus inops* Ait. sensu Bongard in *Mém. Acad. Sci. St Pétersb.* sér. 6, II, 163 (1833); non Ait. (1789).—*Quercus rubra* L. sensu Duroi, *Observ. Bot.* 35 (1771); non L. (1753).—*Alepyrum* R. Br. sensu Hook. f. sec. Hieronymus in *Abh. Naturf. Ges. Halle*, XII, 217 (1873); non R. Br. (1810).

(Rehder, Rec. XXXII ter.)

REC. B XXXII ter. When citing a wrong identification, the name of the group and its author should be placed between inverted commas, followed by the name of the author who misapplied it.

Example: "*Tulipa Borszczowi* Regel" Baker in *Bot. Mag.* t. 6635 (1882), a synonym of *Tulipa Kolpakowskiana* Regel.

(Stearn, Brit. Bot. 15.)

REC. XXXII quater.

In citation of literature a comma should be inserted between the name of the author and the title of a book or other work published by the author himself, while "in" should be inserted after the name of the author if the citation refers to a periodical or other serial publication, or if it is a work by another author.

Examples: *Quercus alba* Linnaeus, *Sp. Pl.* 996 (1753).—*Quercus lobata* Née in *Anal. Ci. Nat.* III, 277 (1801).—*Faxonanthus* Greenman in Sargent, *Trees and Shrubs*, I, 23 (1902).

(Rehder, Rec. XXXII quater.)

REC. XXXII quinquies. If a name cited in synonymy applies only in part (pro parte or partim) to the group under which it is cited, it should be made clear whether the synonym cited includes the type, and in that case the words pro parte typica (p. p. typ.), or partim quoad typum, or a citation to that effect, should be appended; in more exact citations the parts excluded or those belonging to the group in question should be cited or the author who changed the circumscription of a group should be added preceded by "emend."

Examples: *Bradlea* Adans., *Fam.* II, 324 (1763), p. p. quoad synon. *Apios* Cornut [cited as a synonym of *Apios* Med.].—*Acer laxiflorum* var. *longilobum* Rehd. in Sarg., *Pl. Wilson.* I, 94 (1911), p. p. typ., excl. specim. Wilson no. 4108 [cited as synon. of *A. taronense* Hand.-Mazz.].—*Sorbus sikkimensis* Wenzig in *Linnaea*, XXXVIII, 59 (1874), p. p. quoad specim. "Pyrus (a) Khasia, 5000 alt." [cited as synon. of *S. verrucosa*

(Dcne.) Rehd.].—*Cleyera* Thunb. emend. Sieb. & Zucc. *Fl. Jap.* 151 (1835).

(Rehder, Rec. XXXII quinquies.)

Rec. XXXII sexies. If a generic name antedated by one of the synonyms or by a homonym is valid on account of being a nomen conservandum the words "nom. conserv." should be added to the citation, e.g. *Protea* R. Br. in *Trans. Linn. Soc.* x, 74 (1810), nom. conserv.; non L. (1753).

(Rehder, Rec. XXXII sexies.)

Rec. XXXII septies. When citing names in synonymy the names or combinations of names should be cited exactly as published by their author without grammatical or orthographic corrections or changes in the indication of rank of subdivisions of genera or of species. If a name is adopted as valid with alterations from the form as originally published, it is desirable that in full quotations the original form should be appended, if it differs from the form adopted as correct.

Examples: *Pyrus Calleryana* Decne. (*Pirus Mairei* Léveillé in Fedde, *Rep.* xii, 189: 1913) or (*P. Mairei* Léveillé in Fedde, *Rep.* xii, 189: 1913: "*Pirus*"). Not *Pyrus Mairei*.—*Evonymus alata* Regel, *Fl. Ussur.* 40 (1861) "*alatus*" (*Euonymus Loeseneri* Makino in *Bot. Mag. Tokyo*, xxv, 229: 1911). Not *Evonymus*.—*Zanthoxylum cribrosum* Sprengel, *Syst.* i, 946 (1825) "*Xanthoxylon*". (*Xanthoxylon Caribaeum* var. *Floridanum* Gray in *Proc. Am. Acad.* n.s. xxiii, 225: 1888). Not *Z. caribaeum* var. *floridanum* (Nutt.) Gray.—*Quercus bicolor* Willd. (*Q. Prinus discolor* Michaux, *Hist. Arb. For.* ii, 46: 1812). Not *Q. Prinus* var. *discolor* Michaux.—*Spiraea latifolia* (Ait.) Borkh. (*Spiraea salicifolia* γ *latifolia* Aiton, *Hort. Kew.* ii, 198: 1789). Not *S. salicifolia latifolia* Aiton or *S. salicifolia* var. *latifolia* Aiton.—*Juniperus communis* var. *montana* Aiton (*J. communis* [var.] 3. *nana* Loudon, *Arb. Brit.* iv, 2489: 1838). In this case var. may be added in brackets, since Loudon classes this combination

under "varieties".—*Ribes tricuspis* Nakai in *Bot. Mag. Tokyo*, XXX, 142 (1916), "*tricuspe*".

(Rehder, Rec. XXXII *septies*.)

Section 8. *Retention of Names or Epithets of Groups which are Remodelled or Divided* (Art. 50–52)

ART. 50. An alteration of the diagnostic characters, or of the circumscription of a group, does not warrant a change in its name, except in so far as this may be necessitated (1) by transference of the group (Art. 53–55), or (2) by its union with another group of the same rank (Art. 56–57), or (3) by a change of its rank (Art. 58).

Examples: The genus *Myosotis* as revised by R. Brown differs from the original genus of Linnaeus, but the generic name has not been changed, nor is a change allowable. Various authors have united with *Centaurea Jacea* L. one or two species which Linnaeus had kept distinct; the group thus constituted must be called *Centaurea Jacea* L. sensu ampl. or *Centaurea Jacea* L. em. Cosson et Germain, em. Visiani, or em. Godron, etc.: the creation of a new name such as *Centaurea vulgaris* Godr. is superfluous.

ART. A 50. Examples: after "nor is a change allowable" add: "since the standard species (or type) of *Myosotis* L. remains in the genus".

(Rehder, Art. 50.)

Section 9. *Retention of Names or Epithets of Groups below the Rank of Genus on transference to another Genus or Species* (Art. 53–55)

ART. 54. When a species is transferred to another genus (or placed under another generic name for the same genus), without change of rank, the specific epithet must be retained or (if it has not been retained) must be re-established, unless

one of the following obstacles exists: (1) that the resulting binary name is a later homonym (Art. 61) or a tautonym (Art. 68, 3); (2) that there is available an earlier validly published specific epithet.

When the specific epithet, on transference to another generic name, has been applied erroneously in its new position to a different plant, the combination must be retained for the plant on which the epithet was originally based.

Examples: *Antirrhinum spurium* L. (*Sp. Pl.* 613: 1753) when transferred to the genus *Linaria*, must be called *Linaria spuria* (L.) Mill. (*Gard. Dict.* ed. 8, n. 15: 1768).—*Chailletia hispida* Oliv. (*Fl. Trop. Afr.* I, 343: 1868) when placed under the generic name *Dichapetalum* (an older name for the same genus), must be called *Dichapetalum hispidum* (Oliv.) Baill. (*Hist. Pl.* V, 140: 1874).—*Lotus siliquosus* L. (*Syst.* ed. 10, 1178: 1759) when transferred to the genus *Tetragonolobus*, must be called *Tetragonolobus siliquosus* (L.) Roth (*Tent. Fl. Germ.* I, 323: 1788) and not *Tetragonolobus Scandalida* Scop. (*Fl. Carn.* ed. 2, II, 87: 1772).—*Spartium biflorum* Desf. (1798–1800), when transferred to the genus *Cytisus* by Spach in 1849, could not be called *Cytisus biflorus*, because this name had been previously and validly published for a different species by L'Héritier in 1789; the name *Cytisus Fontanesii* given by Spach is therefore legitimate.—*Santolina suaveolens* Pursh (1814) when transferred to the genus *Matricaria* must be called *Matricaria matricarioides* (Less.) Porter (1894); the epithet *suaveolens* cannot be used in the genus *Matricaria* owing to the existence of *Matricaria suaveolens* L. (*Fl. Suec.* ed. 2, 297: 1755), an earlier validly published name.—The specific epithet of *Pinus Mertensiana* Bong. was transferred to *Tsuga* by Carrière, who, however, erroneously applied the new combination *Tsuga Mertensiana* to another species of *Tsuga*, namely *T. heterophylla* (Raf.) Sarg., as is evident from his description: the combination *Tsuga Mertensiana* (Bong.) must be retained for *Pinus Mertensiana* Bong. when that species is

placed in *Tsuga*; the citation in parenthesis (under Art. 49) of the name of the original author, Bongard, indicates the type of the epithet.

ART. A 54. The second paragraph to read:

"When, on transference to another genus, the specific epithet has been applied erroneously in its new position to a different plant, the combination must be retained for the plant on which the epithet was originally based and must be attributed to the author who first correctly used the combination for the right plant. The incorrect use must not be treated as an earlier homonym."

To the examples add at end after "epithet": "*Tsuga Mertensiana* (Bong.) Sargent [non Carrière in errore]"—see *Journ. Bot.* Suppl. 1934, p. 20.

(Ramsbottom, Brit. Bot. 16.)

ART. B 54. That the second paragraph should read as follows:

"When the specific epithet, on transference to another generic name, has been applied erroneously in its new position to a different species, the new combination must be retained for the plant on which the epithet was originally based."

"Example: The specific epithet of *Pinus Mertensiana* Bong. was transferred to *Tsuga* by Carrière, who, however, erroneously applied the new combination *Tsuga Mertensiana* (Bong.) Carr. to another species of *Tsuga*, namely to *T. heterophylla* (Raf.) Sarg., as is evident from his description: the combination *Tsuga Mertensiana* (Bong.) Carr. must be retained for *Pinus Mertensiana* Bong. when that species is placed in *Tsuga*; the citation in parenthesis (under Art. 49) of the name of the original author, Bongard, indicates the type of the epithet. If desired the words 'em. Sarg.' may be added (under Art. 47)."

(Sprague, Brit. Bot. 17.)

ART. 55. When a variety or other subdivision of a species is transferred, without change of rank, to another genus or

species (or placed under another generic or specific name for the same genus or species), the original subdivisional epithet must be retained or (if it has not been retained) must be re-established, unless one of the following obstacles exists: (1) that the resulting ternary combination has been previously and validly published for a subdivision based on a different type, even if that subdivision is of a different rank; (2) that there is an earlier validly published subdivisional epithet available.

When the epithet of a subdivision of a species, on transference to another species, has been applied erroneously in its new position to a different plant, the new combination must be retained for the plant on which the group was originally based.

Examples: The variety *micranthum* Gren. et Godr. (*Fl. France*, I, 171: 1847) of *Helianthemum italicum* Pers., when transferred as a variety to *H. penicillatum* Thib., retains its varietal epithet, becoming *H. penicillatum* var. *micranthum* (Gren. et Godr.) Grosser (in Engl. *Pflanzenreich*, Heft 14, 115: 1903).—The variety *subcarnosa* Hook. fil. (*Bot. Antarct. Voy.* I, 5: 1847) of *Cardamine hirsuta* L., when transferred as a variety to *C. glacialis* DC., becomes *C. glacialis* var. *subcarnosa* (Hook. f.) O. E. Schulz (in Engl. *Bot. Jahrb.* XXXII, 542: 1903); the existence of an earlier synonym of different rank (*C. propinqua* Carmichael in *Trans. Linn. Soc.* XII, 507: 1818) does not affect the nomenclature of the variety (see Art. 58). In each of these cases it is the earliest varietal epithet which is retained.

ART. A 55. Paragraph 2 to read as follows:

"When the epithet of a subdivision of a species, on transference to another genus or species, has been applied erroneously in its new position to a different subdivision of the same rank, the new combination must be retained for the plant on which the former combination was based."

(Sprague, Brit. Bot. 17 bis.)

Section 10. *Choice of Names when two Groups of the Same Rank are united, or in Fungi with a Pleomorphic Life Cycle* (Art. 56–57, Rec. XXXIII–XXXV)

REC. XXXIV. When several genera are united as subgenera or sections under one generic name, the subdivision including the type of the generic name used, may bear that name unaltered (e.g. *Anarrhinum* sect. *Anarrhinum*; *Hemigenia* sect. *Hemigenia*) or with a prefix (*Anthriscus* sect. *Eu-Anthriscus*) or a suffix (*Stachys* sect. *Stachyotypus*). These prefixes or suffixes lapse when the subdivisions are raised to generic rank.

REC. A XXXIV. Delete the provision concerning the prefix *Eu*.

(Danser, Rec. XXXIV.)

REC. XXXV. When several species are united as subspecies or varieties under one specific name, the subdivision which included the type of the specific epithet used may be designated either by the same epithet unaltered (e.g. *Stachys recta* subsp. *recta*) or with a prefix (e.g. *Alchemilla alpina* subsp. *eu-alpina*), or by one of the customary epithets *typicus*, *originarius*, *genuinus*, *verus*, *veridicus*, etc., indicating that it is the type subdivision.

REC. A XXXV. Delete the provision concerning the prefix *Eu*.

(Danser, Rec. XXXV.)

ART. 57. Among Fungi with a pleomorphic life cycle the different successive states of the same species (*anamorphoses*, *status*) can bear only one generic and specific name (binary), that is the earliest which has been given, starting from Fries, *Systema*, or Persoon, *Synopsis*, to the state containing the form which it has been agreed to call the perfect form, provided that the name is otherwise in conformity with the Rules. The perfect state is that which ends in the ascus stage in the *Ascomycetes*, in the basidium in the *Basidiomycetes*, in the

teleutospore or its equivalent in the *Uredinales*, and in the spore in the *Ustilaginales*.

Generic and specific names given to other states have only a temporary value. They cannot replace a generic name already existing and applying to one or more species, any one of which contains the "perfect" form.

The nomenclature of Fungi which have not a pleomorphic life cycle follows the ordinary rules.

Examples: The names *Aecidium* Pers., *Caeoma* Link, and *Uredo* Pers. designate different states (aecidiosporic with or without pseudoperidium, uredosporic) in the group *Uredinales*: the generic name *Melampsora* Cast. (*Obs.* II, 18: 1843), applied to a genus which is defined by means of the teleutospores, cannot therefore be replaced by the name *Uredo* Pers. (in Roemer, *Neu. Mag.* I, 93: 1794) since the name *Uredo* is already used to designate a state....

ART. A 57. In the first paragraph change "Persoon, *Synopsis*" to "Linnaeus, *Species Plantarum*".

In the fourth paragraph under "Examples" replace the first sentence by the following: "The generic names *Aecidium*, *Roestelia*, *Peridermium* and *Uredo* not only are names of genera, but are also employed to designate different stages in the group *Uredinales*." Delete the second sentence [concerning *Melampsora*].

(Arthur, Art. 49 bis.)

ART. A 57 bis. Among fossil forms a plant which has been reconstructed by the association of fragments referable to different organ genera and bearing different names, must be given a distinct *binominal name* to designate the plant as a whole (*combination genus*).

A generic name permanently associated with an organ genus should not be used for this purpose.

Note. As to the last part of this suggestion there are several exceptions for practical reasons.

Lepidodendron and *Sigillaria* ab origine are organ genera especially for the stems. However they cannot be rejected as combination genus for practical reasons.

(Jongmans, Halle, Gothan, Art 57*a*.)

ART. B 57 bis. Among extinct fossil forms a plant which has been reconstructed by the association of fragments referable to different organ genera and bearing different names must be given a distinct binary name to designate the plant as a whole. A generic name permanently associated with an organ genus must not be used for this purpose.

(British Palaeobotanists, Art. [57 bis].)

ART. 57 ter. If two organ genera or artificial (form) genera of fossil plants are found to contain parts (different organs) of the same plant, both genera must nevertheless be retained under their original names. For the combination of organs it is necessary, with the exception mentioned below, to establish a new genus (*combination genus*) with a new name (comp. Art. 16, footnote). If in the course of reconstruction of the plant other organs are added, the first valid name given to the combination of organs must stand, every additional organ genus found to contain parts of the plant being retained in its original sense and under its original name. A species of an organ genus should keep the earlier of the specific names of the two species first found to contain parts of the same plant. Addition of new species with earlier specific names does not justify a change of the specific name.

In certain well-known cases the name of an organ genus—usually that applied to the dominant or the most characteristic or well-known part—is generally used as a designation for the whole plant (for instance *Lepidodendron*, which was originally established as an organ genus for the stem). In some cases of this kind the practice of using an organ genus also for the whole plant should be legalized by the provision of a *list of recognized exceptions*.

Note. A "combination genus" should only be established in cases of actual connection between two organs or, in exceptional cases, of absolute agreement in very characteristic structural details occurring in closely associated organs (e.g. *Sphenopteris Hoeninghausii* and *Lagenostoma Lomaxi*—in this case actual connection was later proved), but *never* on the grounds of mere association or other circumstantial evidence.

(Jongmans, Halle, Gothan, Art. 57*b*.)

Section 11. *Choice of Names when the Rank of a Group is Changed* (Art. 58, Rec. XXXVI)

ART. 58. When a tribe becomes a family, when a subgenus or section becomes a genus, when a subdivision of a species becomes a species, or when the reverse of these changes takes place, and in general when a group changes its rank, the earliest legitimate name or epithet given to the group in its new rank is valid, unless that name or the resulting association or combination is a later homonym (see Art. 60, 61).

ART. A 58. Omit "when a subdivision of a species becomes a species". After the word "group" in the fourth line add "above the rank of species". Delete "or epithet" and "or combination".

(Wilmott, Brit. Bot. 18.)

ART. 58 bis. In the case of species and their subdivisions, when the rank of the group is raised the earliest legitimate epithet given to the group in its new rank is valid, unless that name or the resulting combination is a later homonym (see Art. 60, 61), but when the rank is lowered the earliest legitimate epithet of highest rank must be retained or reinstated.

(Wilmott, Brit. Bot. 19.)

REC. XXXVI. (1) When a subtribe becomes a tribe, when a tribe becomes a subfamily, when a subfamily becomes a family, etc., or when the inverse changes occur, the root of

the name should not be altered but only the termination (*-inae*, *-eae*, *-oideae*, *-aceae*, *-ineae*, *-ales*, etc.) unless the resulting name is rejected under Section 12 or the new name becomes a source of error or there is some other serious reason against it.

REC. A XXXVI. Replace "*-ales*" by "*-ares*".
(Danser, Rec. XXXVI.)

Section 12. *Rejection of Names* (Art. 59–69, Rec. XXXVII)

ART. 59. A name or epithet must not be rejected, changed or modified, merely because it is badly chosen, or disagreeable, or because another is preferable or better known.

ART. A 59. Delete Art. 59.
(Adams, Art. 59.)

ART. 60. A name must be rejected if it is illegitimate (see Art. 2). The publication of an epithet in an illegitimate combination must not be taken into consideration for purposes of priority (see Art. 45).

A name is illegitimate in the following cases:

(1) If it was superfluous when published, i.e. if there was a valid name (see Art. 16) for the group to which it was applied, with its particular circumscription, position and rank.

Examples: The generic name *Cainito* Adans. (*Fam.* II, 166: 1763) is illegitimate because it was a superfluous name for *Chrysophyllum* L. (*Sp. Pl.* ed. 1, 192: 1753); the two genera had precisely the same circumscription.—The generic name *Unisema* Raf. (*Med. Repos. N. York*, V, 192: 1819) is illegitimate because Rafinesque so circumscribed his genus as to include *Pontederia cordata* L., the type species of *Pontederia* L. (1753): *Unisema* Raf. was therefore a superfluous name for *Pontederia* L.—*Chrysophyllum sericeum* Salisb. (*Prodr.* 138: 1796) is illegitimate, being a superfluous name for *C. Cainito* L. (1753),

which Salisbury cited as a synonym.—On the other hand, *Cucubalus latifolius* Mill. and *C. angustifolius* Mill. (*Gard. Dict.* ed. 8, nn. 3, 4: 1768) are not illegitimate names, although these species are now re-united with *C. Behen* L. (1753), from which Miller separated them: *C. latifolius* Mill. and *C. angustifolius* Mill. as circumscribed by Miller did not include the type of *C. Behen* L.

(2) If it is a binary or ternary name published in contravention of Art. 16, 50, 52 or 54, i.e. if its author did not adopt the earliest legitimate epithet available for the group with its particular circumscription, position and rank.

Example: *Tetragonolobus Scandalida* Scop. (1772) is an illegitimate name because Scopoli did not adopt the earliest specific epithet available, namely *siliquosus*, when he transferred *Lotus siliquosus* L. (1759) to *Tetragonolobus* (see Art. 54). On the other hand, *Seseli selinoides* Jacq. (*Enum. Stirp. Vindob.* 51, 227: 1762) is not an illegitimate name, although it is now treated as conspecific with *Peucedanum Silaus* L. (1753), Jacquin (*loc. cit.* 46). Jacquin did not transfer *Peucedanum Silaus* to *Seseli* as *Seseli selinoides*: he described the latter as a new species, based on a cultivated specimen of a plant found wild near Lanzendorff. As circumscribed by Jacquin, *Seseli selinoides* and *Peucedanum Silaus* were mutually exclusive.

ART. A 60. At the end of the second sentence add "except as indicated under Art. 61".

(Wilmott, Brit. Bot. 20.)

ART. B 60. Art. 60 (1) to read as follows:

"(1) If it was nomenclaturally superfluous when published, i.e. if the group to which it was applied, as circumscribed by its author, included the type of a name which he (or she) ought to have adopted under one or more of the Rules."

The second example to read as follows:

"The genus *Unisema* Raf. (*Med. Repos. N. York*, v, 192: 1819) was so circumscribed as to include *Pontederia cordata* L.,

the type of *Pontederia* L. (1753). Under Art. 50, Rafinesque ought to have adopted the name *Pontederia* L. for the genus concerned. *Unisema* was therefore nomenclaturally superfluous."

(Sprague, Brit. Bot. 21.)

ART. C 60. Sections (1) and (2) to read as follows:

"(1) If it was superfluous when published, i.e. if its author cited a name which, with his taxonomic interpretations and synonymy, was a valid name (see Art. 16) for the group to which it was applied with its particular circumscription, position and rank."

"(2) If it is a binary or ternary name published in contravention of Art. 16, 50, 52 or 54, i.e. if its author, with his taxonomic interpretations and synonymy, did not adopt the earliest legitimate epithet available for the group with its particular circumscription, position and rank."

(Wilmott, Brit. Bot. 22.)

ART. 61. A name of a taxonomic group is illegitimate and must be rejected if it is a *later homonym*, that is if it duplicates a name previously and validly published for a group of the same rank based on a different type. Even if the earlier homonym is illegitimate, or is generally treated as a synonym on taxonomic grounds, the later homonym must be rejected.

Examples: The generic name *Tapeinanthus* Boiss. ex Benth. (1848) given to a genus of *Labiatae*, is a later homonym of *Tapeinanthus* Herb. (1837), a name previously and validly published for a genus of *Amaryllidaceae*; *Tapeinanthus* Boiss. ex Benth. must therefore be rejected as was done by Th. Durand (*Ind. Gen. Phan.* 703: 1888) who renamed it *Thuspeinanta*.—The generic name *Amblyanthera* Müll. Arg. (1860) is a later homonym of the validly published generic name *Amblyanthera* Blume (1849), and must therefore be rejected although *Amblyanthera* Blume is now reduced to *Osbeckia* L. (1753).—*Astragalus rhizanthus* Boiss. (*Diagn. Fl. Or.* Ser. 1, II, 83: 1843)

is a later homonym of the validly published name *Astragalus rhizanthus* Royle (*Illustr. Bot. Himal.* 200: 1835), and it must therefore be rejected, as was done by Boissier who renamed it *A. cariensis* (*Diagn.* ser. 1, IX, 57: 1849).

Note. Mere orthographic variants of the same name are treated as homonyms, when they are based on different types—see Art. 70.

ART. A 61. Add:

"When an author simultaneously publishes the same new name for more than one group, one use must be considered valid and the other an illegitimate homonym. When the author has himself indicated—in 'errata' or in subsequent publications—which of the names he rejects, his choice must be followed unless a different choice has previously been published. When the author has not made the necessary correction, the application which comes first in the work, or that with the lowest number in the case of names validly published with numbered exsiccata, is to be taken as valid, and that following it, or with higher number, as a later homonym."

"Examples: (1) Linnaeus (*Species Plantarum*, 1753) published *Aira* 1 *spicata* on p. 63 and *Aira* 7 *spicata* on p. 64, but in 'errata' (vol. II after 'Nomina Trivialia' and 'Addenda', line 9 from base) substitutes *indicum* for *spicatum* of species 1 on p. 63: the name *Aira spicata* L. is therefore valid for species 7 on p. 64. (2) Sennen (1929: *Plantes d'Espagne*) published *Polygonum Rechingeri* no. 7067 (=sp. coll. *Persicaria*? collected 24.8.1929) and also *Polygonum Rechingeri* no. 7218 (=*P. equisetiforme* auct. hisp. non Sibth. et Sm.: collected 17.8.1929): in the absence of any correction by the author the former of these uses is valid."

(Wilmott, Brit. Bot. 23.)

ART. 62. A name of a taxonomic group must be rejected if owing to its use with different meanings, it becomes a per-

manent source of confusion or error. A list of names to be abandoned for this reason (*Nomina ambigua*) will form Appendix IV.

Examples: The generic name *Alsine* L., being used by various authors for three genera of *Caryophyllaceae* (*Stellaria* L., *Spergularia* J. et C. Presl, *Minuartia* L.), has been a permanent source of confusion and error (see Sprague in *Kew Bull.* 1920, 308).—The name *Rosa villosa* L. *Sp. Pl.* ed. 1, 491 (1753) is rejected, because it has been applied to several different species, and has become a source of confusion.

ART. A 62. Add the following example:

"*Ulmus campestris* L. *Sp. Pl.* ed. 1, 225 (1753) has been used by various authors for *U. nitens* Moench, *U. minor* Mill. sec. Henry, *U. glabra* Huds., and *U. procera* Salisb., and has therefore become a *nomen ambiguum*." (See *Kew Bull.* 1933, 503.)

(Gilmour, Brit. Bot. 24.)

ART. B 62. The first sentence to read as follows:

"A name of a taxonomic group must be rejected if, owing to segregation, it is used with different meanings, and so becomes a permanent source of confusion or error."

Add the following example:

"*Lavandula Spica* L. *Sp. Pl.* ed. 1, 572 (1753) included the two species subsequently known as *L. officinalis* Chaix and *L. latifolia* Vill. The name *Lavandula Spica* has been applied almost equally to these two species and, being now completely ambiguous, must be rejected." (See *Kew Bull.* 1932, 295.)

(Sprague and Green, Brit. Bot. 25.)

ART. C 62. Delete Art. 62, and replace by Art. 47 bis.

(Wilmott, Brit. Bot. 26.)

REC. XXXVII. When the correct application of a *nomen dubium* has been established by subsequent investigation (of types, etc.), authors adopting it should for purposes of precision cite the name of the author who published the additional

certifying evidence as well as that of the original author. It is also desirable to add the date of certification.

Example: The generic name *Bembix* Lour. (*Fl. Cochinch.* 282: 1790) was a *nomen dubium* from the time of its publication until 1927, when Spencer Moore (in *Journ. of Bot.* LXV, 279) identified it with *Ancistrocladus*: the latter name has been proposed for conservation, but should the name *Bembix* be adopted it should be cited as *Bembix* Lour. sec. (i.e. secundum) Spencer Moore, 1927.

REC. A XXXVII. Before the last sentence add: "The connective *secundum* (abbreviated *sec.*) should be used between the names of the original and certifying authors."

(Wilmott, Brit. Bot. 27.)

ART. 67. Names of genera are illegitimate in the following special cases and must be rejected:

. . . . . .

(4) When they consist of two words, unless these words were from the first combined into one, or joined by a hyphen.

Examples:

. . . . . .

(4) The generic name *Uva ursi* Miller (*Abridg. Gard. Dict.* ed. 4, 1754), as originally published, consisted of two separate words unconnected by a hyphen, and must therefore be rejected. On the other hand, names such as *Quisqualis* (composed of two words combined into one when originally published), *Sebastiano-Schaueria* and *Neves-Armondia* (both hyphened when originally published) are admissible.

ART. A 67. Delete section (4) and its examples (see Art. A 25).

(Adams, Art. 25.)

Section 13. *Orthography of Names* (Art. 70, 71, Rec. XXXVIII–XLIV)

ART. 70. The original spelling of a name or epithet must be retained, except in the case of a typographic error, or of a clearly unintentional orthographic error. When the difference between two generic names lies in the termination, these names must be regarded as distinct, even though differing by one letter only. This does not apply to mere orthographic variants of the same name.

Note 1. The words "original spelling" in this Article mean the spelling employed when the name was validly published.

Note 2. The use of a wrong connecting vowel or vowels (or the omission of a connecting vowel in a specific epithet, or in that of a subdivision of a species) is treated as an unintentional orthographic error which may be corrected.[1] (See Rec. XLIV.)

Note 3. In deciding whether two or more slightly different names should be treated as distinct or as orthographic variants, the essential consideration is whether they may be confused with one another or not: if there is serious risk of confusion, they should be treated as orthographic variants. Doubtful cases should be referred to the Executive Committee.

Note 4. Specific and other epithets of Greek origin differing merely by having Greek and Latin terminations respectively are orthographic variants. Epithets bearing the same meaning and differing only slightly in form are considered as orthographic variants. The genitive and adjectival forms of a personal name are, however, treated as different epithets (e.g. *Lysimachia Hemsleyana* and *L. Hemsleyi*).

ART. A 70. Delete Art. 70. (See Art. A 25.)
(Adams, Art. 25.)

[1] The reading passed by the Congress is "peut subir une correction": (see also "British Proposals", Art. 74).

ART. B 70. See General Motion, No. I.

(Wilmott, Brit. Bot. 34.)

ART. C 70. *Note* 1. Add the following:

"They do not refer to the use of an initial capital or small letter, this being a question of typography dealt with by Art. 25 and 26 for names of genera and subgenera, etc., and by Rec. XLIII for specific and other epithets."

(Sprague, Brit. Bot. 28.)

ART. D 70. Add a new Note:

"*Note* 2 bis. The liberty of correcting a name must be used with reserve, especially if the change affects the first syllable, and above all the first letter of the name."

(Hochreutiner, Sect. 13.)

ART. E 70. Add a new *Note*:

"*Note* 2 bis. The publication of a personal generic name in a masculine form (with the termination *-us* or *-ius*) instead of the feminine (*-a* or *-ia*) is treated as an unintentional orthographic error which must be corrected (see Rec. X *h*)."

"Examples: The generic names *Riccardius*, *Marchesinius* (*Marchesinus*), *Nardius*, *Herbertus* and *Pallavicinius*, published by S. F. Gray, *Nat. Arr. Brit. Pl.* 1 (1821), 683, 689, 694, 705, 775, are treated as unintentional orthographic errors for *Riccardia*, *Marchesinia*, *Nardia*, *Herberta* and *Pallavicinia* respectively."

(Fr. Verdoorn, Brit. Bot. 29.)

REC. XXXIX. When a new name for a genus, subgenus or section is taken from the name of a person, it should be formed in the following manner.

(*a*) When the name of the person ends in a vowel the letter *a* is added (thus *Bouteloua* after Boutelou; *Ottoa* after Otto; *Sloanea* after Sloane), except when the name already ends in *a* when *ea* is added (e.g. *Collaea* after Colla).

(*b*) When the name of the person ends in a consonant, the letters *ia* are added (e.g. *Magnusia* after Magnus; *Ramondia*

after Ramond), except when the name ends in *er*, when *a* is added (e.g. *Kernera* after Kerner).

(*c*) The syllables which are not modified by these endings retain their original spelling, even with the consonants *k* and *w* or with groupings of vowels which were not used in classical Latin. Letters foreign to botanical Latin should be transcribed, and diacritic signs suppressed. The Germanic *ä*, *ö*, *ü* become *ae*, *oe*, *ue*; the French *é*, *è* and *ê* become generally *e*. In works in which diphthongs are not represented by special type, the diaeresis sign should be used where required, e.g. *Cephaëlis*, not *Cephaelis*.

(*d*) Names may be accompanied by a prefix or a suffix, or modified by anagram or abbreviation. In these cases they count as different words from the original name.

Examples: *Durvillea* and *Urvillea*; *Lapeyrousea* and *Peyrousea*; *Englera*, *Englerastrum* and *Englerella*; *Bouchea* and *Ubochea*; *Gerardia* and *Graderia*; *Martia* and *Martiusia*.

REC. A XXXIX. Delete Rec. XXXIX and replace it by Art. 25 ter.

(Adams, Art. 25*b*.)

[See also II. General Motion, No. I.]

REC. XL. When a new specific or other epithet is taken from the name of a man, it should be formed in the following manner:

(*a*) When the name of the person ends in a vowel, the letter *i* is added (thus *Glazioui* from Glaziou, *Bureaui* from Bureau), except when the name ends in *a*, when *e* is added (thus *Balansae* from Balansa).

(*b*) When the name ends in a consonant, the letters *ii* are added (thus *Magnusii* from Magnus, *Ramondii* from Ramond), except when the name ends in *-er*, when *i* is added (thus *Kerneri* from Kerner).

(*c*) The syllables which are not modified by these endings retain their original spelling, even with the consonants *k* or *w*

or with groupings of vowels which were not used in classical Latin. Letters foreign to botanical Latin should be transcribed and diacritic signs suppressed. The Germanic *ä*, *ö*, *ü*, become *ae*, *oe*, *ue*, the French *é*, *è*, *ê* become generally *e*. The diaeresis sign should be used where required.

(*d*) When epithets taken from the name of a person have an adjectival form they are formed in a similar way (e.g. *Geranium Robertianum*, *Verbena Hasslerana*).

REC. A XL. Delete section (*d*).

(Danser, Rec. XL (*d*).)

[See also II. General Motion, No. I.]

REC. XLI. The same provisions apply to epithets formed from the names of women. When these have a substantival form they are given a feminine termination (e.g. *Cypripedium Hookerae*, *Rosa Beatricis*, *Scabiosa Olgae*, *Omphalodes Luciliae*).

[See II. General Motion, No. I.]

REC. XLII. New specific (or other) epithets should be written in conformity with the original spelling of the words from which they are derived and in accordance with the rules of Latin and latinization.

Examples: *silvestris* (not *sylvestris*), *sinensis* (not *chinensis*).

[See II. General Motion, No. I.]

REC. XLIII. Specific (or other) epithets should be written with a small initial letter, except those which are derived from names of persons (substantives or adjectives) or are taken from generic names (substantives or adjectives).

Examples: *Ficus indica*, *Ciraea lutetiana*, *Aster novi-belgii*, *Malva Tournefortiana*, *Phyteuma Halleri*, *Lythrum Hyssopifolia*, *Brassica Napus*, *Rosa stylosa* var. *Desvauxiana*.

REC. A XLIII. Delete Rec. XLIII and replace it by Art. A 27.

(Adams, Art. 27.)

[See also II. General Motion, No. I.]

REC. B XLIII. Specific (or other) epithets should be written with a small initial letter, except those which are derived from names of persons (substantives or adjectives) or are taken from generic or vernacular names (substantives or adjectives).

Add the following examples: "*Schinus Molle* (Peruvian vernacular name), *Astrocaryum Tucuma* (Brazilian vernacular name)."

(Green, Brit. Bot. 30.)

REC. C XLIII. For "taken from" read "are former".

(Wilmott, Brit. Bot. 31.)

[See also II. General Motion, No. I.]

REC. XLIV. In the formation of specific (or other) epithets composed of two or several roots taken from Latin or Greek, the vowel placed between the two roots becomes a connecting vowel, in Latin *i*, in Greek *o*; thus *menthifolia*, *salviifolia*, not *menthaefolia*, *salviaefolia*. When the second root begins with a vowel and euphony requires, the connecting vowel should be eliminated (e.g. *lepidantha*). The connecting vowels *ae* should be retained only where this is required for etymological reasons (e.g. *caricaeformis* from *Carica*, in order to avoid confusion with *cariciformis* from *Carex*). In certain compounds of Greek words no connecting vowel is required, e.g. *brachycarpus* and *glycyphyllus*.

REC. A XLIV. Delete Rec. XLIV and replace it by Art. A27.

(Adams, Art. 27.)

[See also II. General Motion, No. I.]

Section 14. *Gender of Generic Names* (Art. 72)

ART. 72. The gender of generic names is governed by the following regulations:

(1) A Greek or Latin word adopted as a generic name retains the gender assigned to it by its author.

Examples: *Orchis* (f.); *Stachys* (f.); *Erigeron* (n.).

(2) Generic names which are modern compounds formed from two or more Greek or Latin words take the gender of the last. If the ending is altered, however, the gender will follow it.

Examples of names formed from Greek[1] words: The generic name *Andropogon* L. was treated by Linnaeus as neuter, but it, like all other modern compounds in which the Greek masculine word *pogon* is the final element (e.g. *Centropogon*, *Cymbopogon*, *Bystropogon*), is now treated as masculine. Similarly all modern compounds ending in *-codon*, *-myces*, *-odon*, *-panax*, *-stemon* and other masculine words are masculine. The generic names *Dendromecon* Benth., *Eomecon* Hance and *Hesperomecon* E.L. Greene are treated as feminine, because they end in the Greek feminine word *mecon*, poppy: the fact that Bentham and E.L. Greene respectively ascribed the neuter gender to the names *Dendromecon* and *Hesperomecon* is immaterial. Similarly all modern compounds ending in *-achne*, *-carpha*, *-cephala*, *-chlamys*, *-daphne* and other feminine words are treated as feminine.

The generic names *Aceras* R. Br., *Aegiceras* Gaertn. and *Xanthoceras* Bunge are neuter because they end in the Greek neuter word *ceras*; the fact that Robert Brown and Bunge respectively made *Aceras* and *Xanthoceras* feminine is immaterial. Similarly all modern compounds ending in *-dendron*, *-nema*, *-stigma*, *-stoma*, and other neuter words are neuter. Names ending in *-anthos* (or *-anthus*) and those in *-chilos* (or *-chilus*) ought strictly speaking to be neuter, since that is the gender of the Greek words *anthos* and *cheilos*. These names, however, have been with very few exceptions treated as masculine, hence it is agreed to assign that gender to them. Similarly those ending in *-gaster* which should strictly speaking be feminine are treated as masculine in accordance with botanical custom.

[1] Examples of names formed from Latin words are not given as these offer few difficulties.

Examples of compound generic names where the termination of the last word is altered: *Hymenocarpus*, *Dipterocarpus* and all other modern compounds ending in the Greek masculine *carpos* (or *carpus*) are masculine. Those in *-carpa* or *-carpaea*, however, are feminine e.g. *Callicarpa* and *Polycarpaea*; and those in *-carpon*, *-carpum* or *-carpium* are neuter, e.g. *Polycarpon*, *Ormocarpum* and *Pisocarpium*.

(3) Arbitrarily formed generic names or vernacular names used as generic names take the gender assigned to them by their authors. Where the original author has failed to indicate the gender, the next subsequent author has the right of choice.

Examples: *Taonabo* Aubl. (*Hist. Pl. Guiane*, I, 569: 1775) is feminine; Aublet's two species were *T. dentata* and *T. punctata*.—*Agati* Adans. (*Fam.* II, 326: 1763) was published without indication of gender: the feminine gender was assigned to it by Desvaux (*Journ. de Bot.* I, 120: 1813), who was the first subsequent author to adopt the name, and his choice is decisive.—Boehmer (in Ludwig, *Gen.* ed. 3, 436: 1760), and Adanson (*Fam.* II, 356: 1763), failed to indicate the gender of *Manihot*: the first author to supply specific epithets was Crantz (*Inst. Rei Herb.* I, 167: 1766), who proposed the name *Manihot gossypiifolia*, etc., and *Manihot* is therefore feminine.

ART. A 72. The gender of generic names is governed by the following regulations:

(1) A Greek or Latin word adopted as a generic name retains its original gender in that language.

(2) Generic names which are modern compounds formed from two or more Greek or Latin words take the gender of the last.

(3) In the case of generic names which are not of Greek or Latin origin the gender should be determined by the nature of the Latin ending.

(Adams, Art. 72.)

ART. B 72. The gender of a generic name is the gender assigned to it by its author. Where the original author has failed to indicate the gender, the next subsequent author has the right of choice.

(Hochreutiner, Art. 72.)

ART. C 72. Section (1) to read as follows:

"A Greek or Latin word adopted as a generic name retains its classical gender. In cases where the classical gender varies the author has the right of choice between the alternative genders. In doubtful cases, general usage should be followed.

"The following names, however, whose classical gender is masculine, are treated as feminine in accordance with historic usage: *Adonis*, *Orchis*, *Stachys*, *Diospyros*, *Strychnos*. *Hemerocallis* (m. in *Sp. Pl.*: Lat. and Gr. hemerocalles, n.) is also treated as feminine in order to bring it into conformity with all other generic names ending in *-is*."

(Green, Brit. Bot. 32.)

ART. D 72. Section (2) to be deleted.

(Danser, Art. 72 (2).)

CHAPTER IV. INTERPRETATION AND MODIFICATION OF THE RULES (ART. 73, 74)

ART. 73. A small permanent International Executive Committee is established with functions including the following:

(1) Interpreting the Rules in doubtful cases, and issuing considered "Opinions" on the basis of the evidence submitted.

(2) Considering *Nomina conservanda*, *Nomina ambigua*, *Nomina dubia*, and *Nomina confusa*, and making recommendations thereon to the next International Botanical Congress.

(3) Considering all proposals for the modification of the Rules and reporting thereon to the next Congress.

(4) Reporting on the effects of modification of the Rules accepted at the preceding Congress.

ART. A 73. Supplementary proposals.

1. The same personnel of various Committees should be retained until 1940 so far as possible.

2. That each Committee should elect a Secretary whose name shall be put forward to the Section for approval.

3. That a Secretary shall remain in office until the next International Botanical Congress.

4. That the Secretary of each Sectional Committee shall report matters on which the committee has agreed, to the Secretary of the Executive Committee twelve months before the next Congress. These shall be circulated to the members of the Executive Committee and arranged for consideration at the following Congress.

5. That it is in the best interests of botanical nomenclature that the personnel of the committees should not be permanent; that there should be regular change of secretaries, and as much change as is expedient in the personnel of the committees.

6. That the Secretary of the Executive Committee elected at one International Botanical Congress shall act as a liaison-officer with the organizers of the next Congress in all matters concerning nomenclature.

7. That at the Amsterdam Congress separate committees be set up

(*a*) to draw up regulations for determining types (Appendix I),

(*b*) to prepare a list of Representative Botanical Institutes (Appendix VII),

(*c*) to report on the nomenclature of garden plants (Appendix VIII) and on Art. 31–35.

8. That the sectional committees receive the names proposed for the lists of

Nomina conservanda familiarum (Appendix II),
Nomina ambigua (Appendix IV),
Nomina dubia (Appendix V),
Nomina confusa (Appendix VI),
and Nomina generica conservanda (Appendix III),

in their respective groups and later report on these to the Executive Committee.

9. That all lists should be in the hands of the Secretary of the Executive Committee by September 1939 so that Art. 73 (2), (3) and (4) may be properly carried out.

(Ramsbottom, Brit. Bot. 33.)

ART. 73 bis. A *permanent international sub-committee* of three members *for palaeobotanical nomenclature* is established.

This sub-committee shall take over, in respect to fossil plants, the functions assigned in Art. 73 to the permanent International Executive Committee and report to that committee in the same cases where the latter reports to the Congress. In consideration of the many special problems peculiar to palaeobotanical nomenclature and the fact that many geologists actually engaged in systematic palaeobotanical work are not sufficiently acquainted with the rules of botanical nomenclature, it is further empowered to:

(*a*) issue and publish recommendations applicable only to fossil plants, provided that they are consistent with Rules, these recommendations to be regarded as provisional and to be, after trial, submitted—by way of the International Executive Committee—to the Congress for sanction;

(*b*) publish explanatory remarks and examples to elucidate the application of the Rules to fossil plants and generally promote the distribution of knowledge of the Rules and the

general compliance with these Rules also in works of a prevailingly geological character.

(Jongmans, Halle, Gothan, Art. 73.)

ART. 73 ter. That a Special Committee be appointed by and at this Congress, to prepare from such lists as have been submitted to it, lists of nomina specifica conservanda, as provided in Art. 21 bis.

Note 1. This Committee to be requested to publish (as provided in Art. 36) at the earliest possible date and not later than one year from the date of its appointment, a list or lists of names which it is prepared to recommend to the Seventh International Botanical Congress for conservation.

Note 2. This Committee to hold office until the succeeding International Botanical Congress. In the event of the death or resignation of any of its appointed members, or otherwise if it so desire, the Committee to have power to co-opt additional members.

Note 3. When a name proposed for conservation has been officially published by the Committee, botanists shall be authorised to use it, pending the decision of the succeeding International Botanical Congress.

(Troup, Motion III.)

II

GENERAL MOTIONS

I. It is proposed that much of the matter included in Recommendations XXXIX–XLIV should be given the sanction of Rules, and that an addition be made to Art. 70 to the effect that "when an author has not formed his name or epithet in accordance with Articles... [of these Rules], it must be altered accordingly".

(Wilmott, Brit. Bot. 34.)

II. The following resolution was adopted by the Committee of Section K (Botany) at the Aberdeen Meeting of the British Association, 1934:

"That this Section recommends, through the Acting Rapporteur Général, that the principle of *nomina specifica conservanda* be brought forward for discussion by the Section of Taxonomy at the Sixth International Botanical Congress."

(Troup, Addendum.)

III. That the Congress should consider the re-adoption of the date 1908 as the starting-point for obligatory Latin diagnoses.

(Hochreutiner, Art. 38.)

III

APPENDICES

APPENDIX I. REGULATIONS FOR DETERMINING TYPES

[No draft yet submitted.]

APPENDIX I BIS. REGULATIONS FOR DETERMINING TYPES IN FOSSIL PLANTS

[See Art. 18 bis.]

APPENDIX II. NOMINA FAMILIARUM CONSERVANDA

List proposed by J. Lanjouw and T. A. Sprague.

(Brit. Bot. 35.)

Eight very well-known names of families of Phanerogamae not ending in the suffix *-aceae* were conserved under the International Rules of Nomenclature, ed. 2 (1912), Art. 22.

These were: *Palmae*, *Gramineae*, *Cruciferae*, *Leguminosae*, *Guttiferae*, *Umbelliferae*, *Labiatae*, *Compositae*. At the Cambridge Congress (1930), it was pointed out that other very widely used names of families could not be maintained unless they were conserved, the name *Scrophulariaceae*, for example, being antedated by *Rhinanthaceae*. The Congress accordingly decided to establish an enlarged list of "Nomina conservanda familiarum". The list which follows is submitted for the consideration of the appropriate Committees, and for that of the International Botanical Congress, Amsterdam, 1935.

The list comprises the 185 names of families which are employed both in Bentham and Hooker's *Genera Plantarum* and in Engler u. Gilg, *Syllabus der Pflanzenfamilien*, ed. 9/10 (1924). They are in the form prescribed by Art. 23 of the Rules (ed. 3). The name *Papilionaceae*, which may be used by those who regard that group as constituting an independent family, is also included.

By the method of selection adopted, all personal predilections in favour of a particular system of classification are eliminated. It will doubtless be necessary to add other names, but the present list is put forward as a non-controversial basis on which the complete list may be founded.

It has been necessary to modify the spelling of a few names in order that they may correspond with the correct spelling of those of the type genera. These cases are discussed in the notes. The name *Balanopsidaceae*—badly formed from *Balanops*—has not been altered, because no satisfactory alternative form has been found. The spelling *Balanopaceae*, suggested in a recent circular by Mr J. Adams (Ottawa), does not immediately recall the generic name *Balanops*.

Probably many of the names in the list are the correct ones under International Rules. It seems desirable, however, to suggest all of them for conservation, as an investigation into the validity of even 50 names would involve so much time

as to be impracticable, since no adequate list exists of the places and dates of publication of family names.

Cycadaceae; Gnetaceae.

Typhaceae; Pandanaceae; Najadaceae; Alismataceae; Hydrocharitaceae; Triuridaceae; Gramineae;* Cyperaceae; Palmae;* Cyclanthaceae; Araceae; Lemnaceae; Flagellariaceae; Restionaceae; Centrolepidaceae; Mayacaceae; Xyridaceae; Eriocaulaceae; Rapateaceae; Bromeliaceae; Commelinaceae; Pontederiaceae; Philydraceae; Juncaceae; Liliaceae; Haemodoraceae; Amaryllidaceae; Taccaceae; Dioscoreaceae; Iridaceae; Burmanniaceae; Orchidaceae.

Casuarinaceae; Piperaceae; Chloranthaceae; Salicaceae; Myricaceae; Balanopsidaceae; Leitneriaceae; Juglandaceae; Batidaceae; Urticaceae; Proteaceae; Santalaceae; Olacaceae; Loranthaceae; Balanophoraceae; Aristolochiaceae; Polygonaceae; Chenopodiaceae; Amaranthaceae (1); Nyctaginaceae; Phytolaccaceae; Portulacaceae; Caryophyllaceae.

Nymphaeaceae; Ceratophyllaceae; Ranunculaceae; Berberidaceae; Menispermaceae; Magnoliaceae; Calycanthaceae; Annonaceae (2); Myristicaceae; Monimiaceae; Lauraceae; Papaveraceae; Capparidaceae; Cruciferae;* Resedaceae; Moringaceae.

Sarraceniaceae; Nepenthaceae; Droseraceae; Podostemaceae (3); Crassulaceae; Saxifragaceae; Pittosporaceae; Bruniaceae; Hamamelidaceae; Platanaceae; Rosaceae; Connaraceae; Leguminosae;* Papilionaceae.†

Geraniaceae; Linaceae; Humiriaceae (4); Zygophyllaceae; Rutaceae; Simaroubaceae; Burseraceae; Meliaceae; Malpighiaceae; Vochysiaceae; Tremandraceae; Polygalaceae; Euphorbiaceae; Empetraceae; Coriariaceae; Anacardiaceae; Cyrillaceae; Celastraceae; Salvadoraceae; Stackhousiaceae; Sapindaceae; Sabiaceae; Rhamnaceae; Chlaenaceae; Tiliaceae; Malvaceae; Sterculiaceae.

* An alternative name ending in *-aceae* may be used for this family.

† If treated as an independent family.

Dilleniaceae; Ochnaceae; Guttiferae;* Dipterocarpaceae; Elatinaceae; Frankeniaceae; Tamaricaceae; Cistaceae; Bixaceae; Lacistemaceae; Canellaceae; Violaceae; Turneraceae; Passifloraceae; Loasaceae; Datiscaceae; Begoniaceae; Cactaceae; Penaeaceae; Thymelaeaceae; Elaeagnaceae; Lythraceae; Rhizophoraceae; Combretaceae; Myrtaceae; Melastomataceae; Haloragaceae (5); Araliaceae; Umbelliferae;* Cornaceae.

Diapensiaceae; Ericaceae; Epacridaceae; Myrsinaceae; Primulaceae; Plumbaginaceae; Sapotaceae; Ebenaceae; Styracaceae.

Oleaceae; Loganiaceae; Gentianaceae; Apocynaceae; Asclepiadaceae; Convolvulaceae; Polemoniaceae; Lennoaceae; Hydrophyllaceae; Boraginaceae (6); Verbenaceae; Labiatae;* Solanaceae; Scrophulariaceae; Bignoniaceae; Pedaliaceae; Orobanchaceae; Gesneriaceae; Columelliaceae; Lentibulariaceae; Acanthaceae; Myoporaceae; Plantaginaceae.

Rubiaceae; Caprifoliaceae; Valerianaceae; Dipsacaceae; Cucurbitaceae; Campanulaceae; Goodeniaceae; Stylidiaceae; Calyceraceae; Compositae.*

Notes

(1) *Amaranthaceae.* The name of the type genus is *Amaranthus* L. (1753). This spelling must be retained under International Rules, since it was deliberately adopted by Linnaeus in preference to the classical form *Amarantus* (see *Kew Bull.* 1928, 287, 343). The family name is therefore *Amaranthaceae* (not *Amarantaceae*).

(2) *Annonaceae.* The name of the type genus is *Annona* L. (1753), which was deliberately adopted by Linnaeus in preference to *Anona.* He rejected the latter on the ground that it was a "barbarous" name, whereas *Annona* was a classical

* An alternative name ending in *-aceae* may be used for this family.

word (see *Kew Bull.* 1928, 344). The family name is therefore *Annonaceae*.

(3) *Podostemaceae*. The name of the type genus is *Podostemum*. The family name is therefore *Podostemaceae* (see *Kew Bull.* 1933, 46).

(4) *Humiriaceae*. The correct name for the type genus is *Houmiri* Aubl. (1775). The Latinized form *Humiria* Jaume St Hil. (1805) is so widely employed, however, that it seems desirable to conserve it. Unless this is done, the spelling of the family name will have to be altered.

(5) *Haloragaceae*. The name of the type genus is *Haloragis* (see *Kew Bull.* 1928, 354). The International Rules prohibit alterations in spelling based solely on philological grounds. The spelling of the family name follows that of the generic one.

(6) *Boraginaceae*. It has been shown that the correct spelling, under International Rules, of the name of the type genus is *Borago* (see *Kew Bull.* 1928, 288, 348). The name of the family must correspond.

Appendix III. NOMINA GENERICA CONSERVANDA

1. Algae

List Proposed by G. Tandy
(Brit. Bot. 36)

Phaeophyceae

(Laminariac.) **Agarum** Bory, *Dict. Class. Hist. Nat.* IX, 193 (1826) (non Link in Schrad. *Neues Journ. f. d. Bot.* III, 7 (1809) = *Phyllophora* Grev. nom. conserv.). Standard species: [not supplied].

(Chordariac.) **Chordaria** Ag. *Syn. Alg. Scand.* p. XII (1817)

emend. (non Link in Schrad. *Neues Journ. f. d. Bot.* III, 8 (1809) = *Chorda* Stackh.). Standard species: *C. divaricata* Ag.

(Elachistac.) **Elachista** ("Elachistea") Duby, *Bot. Gall.* 972 (1830). This is a mere regularization of an item in the accepted list.

(Dictyotac.) **Zonaria** Ag. *Syn. Alg. Scand.* p. xx (1817) emend. sensu J. Ag. in *Linnaea*, xv, 445 (1841). Standard species: *Z. variegata* (Lamour.) Ag.

Nomen rejiciendum: *Villania* Nieuwl. in *Amer. Midl. Naturalist*, v, 51 (1917).

Rhodophyceae

(Helminthocladiac.) **Helminthocladia** J. Ag. *Spec. Gen. et Ord. Alg.* II, 412 (1852) (non Harv. *Genera S. Afr. Pl.* 363: 1838). Standard species: [not supplied].

2. Musci

List Proposed by H. N. Dixon
(on behalf of the Bryological Subcommittee)

Myurium Schimp. *Syn.* (1860), 695. Standard species: *Myurium hebridarum* Schimp. *Syn.* (1860), 696.

Nomen rejiciendum: *Oedicladium* Mitt. in *Journ. Linn. Soc., Bot.* x, 195 (1868).

Leptodon Mohr emend. Bry. eur. (1851). Standard species: *L. Smithii* Mohr.

Nomen rejiciendum: *Leptodon* Mohr emend. Sulliv. (1846).

Papillaria C. Müll. in *Oefv. af K. Sv. Vet. Akad. Foerh.* no. 4 (1876), 34: non Dulac (1867). Standard species: [not supplied].

Nomen rejiciendum: *Tricholepis* Kindb. in *Ottawa Natural.* (1900), 78.

Haplohymenium Doz. et Molk. *M. Fr. Ined. Arch. Ind.* (1845–48). Standard species: *Leptohymenium Sieboldii* Doz. et Molk.

Nomina rejicienda: [not supplied].

Platygyrium Bry. eur. (1851). Standard species: *P. repens* (Brid.).

Nomina rejicienda: *Leptohymenium* Schwaegr. (1828); *Pterigynandrum* Brid. (1827); *Pterogonium* Schwaegr. (1828).

3. Pteridophyta

List Proposed by A. Becherer
(Vorschlag, I)

(Polypodiac.) **Dryopteris** Adanson, *Fam. Pl.* II, p. 20 (1763); O. Kuntze, *Rev. Gen.* II, p. 808 (1891); Christensen, *Index Fil.* p. 250 (1905); Suppl. I, p. 29 (1913); Suppl. II, p. 13 (1917); Suppl. III, p. 79 (1934); et auct. mult.—T.: *D. Filix-mas* (L.) Schott.

Nomina rejicienda: *Filix* Hill, *Family Herbal*, p. 171 (1755); Farwell in *Ann. Rep. Mich. Acad.* XVIII, p. 79 (1916)—non Ludwig (1757) nec Adanson (1763). *Filix mas* Hill, *Brit. Herbal*, p. 527 et Index (1756); Farwell in *Amer. Midl. Nat.* XII, pp. 235 et 253 ("*Filix-mas*") (1931). *Thelypteris* Schmidel, *Ic. Pl.*, ed. J. C. Keller, p. 45, pls. 11 et 13 (1762); et auct. amer. recent., e.g. Nieuwland in *Amer. Midl. Nat.* I, p. 226 (1910); Weatherby in *Rhodora*, XXI, no. 250, pp. 174 et 177 (1919)—non Adanson (1763).

(Polypodiac.) **Ceterach** Garsault, *Fig. Pl.* II, pl. 212[1] (1764); Lam. et DC. *Fl. franç.* 3me ed. II, p. 566 (1805); et auct. omn. recent.—T.: *C. officinarum* Lam. et DC.

Nomen rejiciendum: *Ceterac* Adanson, *Fam. Pl.* II, p. 20 (1763), pro parte.

[1] Im Text (Descr. pl., p. 140: 1767) schreibt Garsault "Caeterac".

4. Phanerogamae

A. List Proposed by J. E. Dandy (Brit. Bot. 37)

For convenience the names are grouped in two sections: (*a*) names invalidated by earlier synonyms, and (*b*) names invalidated by earlier homonyms.

(*a*) *Names Invalidated by Earlier Synonyms*

57 (Potamog.) **Posidonia** *Konig* in Konig and Sims, *Ann. Bot.* II, 95, t. 6 (1805). Type species: *P. Caulini* Konig.

Nomen rejiciendum: *Alga* Boehm. in *Ludw. Defin. Gen. Pl.* ed. Boehm. 503 (1760).

512 (Cyper.) **Eriospora** Hochst. ex A. Rich. *Tent. Fl. Abyssin.* II, 508 (1851). Type species: *E. abyssinica* Hochst. ex A. Rich.

Nomen rejiciendum: *Catagyna* Beauv. ex Lestib. *Ess. Fam. Cypér.* 26 (1819).

808 (Restion.) **Leptocarpus** R. Br. *Prodr. Fl. Nov. Holland,* I, 250 (1810). Standard species: *L. aristatus* R. Br.

Nomen rejiciendum: *Schoenodum* Labill. *Nov. Holland. Pl. Specim.* II, 79 (1805); emend. Kunth, *Enum. Pl.* III, 445 (1841).

894 (Commelin.) **Palisota** Reichb. [*Consp. Reg. Veg.* 59 (1828), *nomen nudum*] ex Endl. *Gen. Pl.* 125 in obs. (1836). Type species: *P. ambigua* (Beauv.) C. B. Clarke (*Commelina ambigua* Beauv.).

Nomen rejiciendum: *Duchekia* Kostel. *Allgem. Med.-pharm. Fl.* I, 213 (1831).

1324 (Zingib.) **Zingiber** Boehm. in *Ludw. Defin. Gen. Pl.* ed. Boehm. 89 (1760). Standard species: *Z. officinale* Rosc. (*Amomum Zingiber* L.).

Nomen rejiciendum: *Zinziber* Mill. *Gard. Dict. Abridg.* ed. 4, III (1754).

1408 (Orchid.) **Holothrix** Rich. [in *Mém. Mus. Hist. Nat.*

IV, 55 in obs. (1818), *nomen nudum*] ex Lindl. *Gen. and Sp. Orchid. Pl.* 257, 283 (1835). Type species: *H. hispidula* (L. f.) Dur. et Schinz (*Orchis hispidula* L. f.).

Nomina rejicienda: *Tryphia* Lindl. [in *Edw. Bot. Reg.* XX, sub t. 1701 (1834), *nomen nudum*] *Gen. and Sp. Orchid. Pl.* 258, 333 (1835). *Scopularia* Lindl. in *Edw. Bot. Reg.* XX, sub t. 1701 (1834). *Monotris* Lindl. *loc. cit.* *Saccidium* Lindl. *Gen. and Sp. Orchid. Pl.* 258, 301 (1835).

1488 (Orchid.) **Pelexia** Poit. ex [Rich. in *Mém. Mus. Hist. Nat.* IV, 59 (1818), *nomen nudum*] Lindl. in *Edw. Bot. Reg.* XII, sub t. 985 (1826). Type species: *P. adnata* (Sw.) Spreng. (*Neottia adnata* (Sw.) Sw.).

Nomen rejiciendum: *Collea* Lindl. in *Edw. Bot. Reg.* IX. sub t. 760 in obs. (1823).

1500 (Orchid.) **Anoectochilus** Bl. *Fl. Jav.* praef. p. vi, in adnot. (1828). Type species: *A. setaceus* (Bl.) Lindl. (*Anecochilus setaceus* Bl.).

Nomina rejicienda: *Anecochilus* Bl. *Bijdr. Fl. Nederl. Ind.* 411 (1825). *Chrysobaphus* Wall. *Tent. Fl. Napal. Illustr.* 37 (1826).

1704 (Orchid.) **Cirrhopetalum** Lindl. [in *Edw. Bot. Reg.* X, sub t. 832 (1824), *nomen nudum*] *Gen. and Sp. Orchid. Pl.* 58 (1830). Type species: *C. Thouarsii* Lindl. (*Bulbophyllum longiflorum* Thou.).

Nomina rejicienda: *Zygoglossum* Reinw. [ex Bl. *Cat. Gewass. Lands Plantent. Buitenz.* 100 (1823), *nomen nudum*] apud Hornsch. in *Syll. Pl. Nov.* II, 4 (1828). *Ephippium* Bl. *Bijdr. Fl. Nederl. Ind.* 308 (1825). *Hippoglossum* Breda, *Gen. et Sp. Orchid.* (1827).

1714 (Orchid.) **Panisea** (Lindl.) *Lindl. Fol. Orchid.* (1854). Type species: *P. parviflora* (Lindl.) Lindl. (*Coelogyne parviflora* Lindl.).

Nomen rejiciendum: *Androgyne* Griff. *Notul. Pl. As.* III, 279 (1851).

1778 (Orchid.) **Miltonia** Lindl. in *Edw. Bot. Reg.* XXIII,

sub t. 1976 in obs. (1837). Type species: *M. spectabilis* Lindl.

Nomen rejiciendum: *Gynizodon* Raf. *Fl. Tellur.* IV, 40 (1836).

4627 (Celastr.) **Gymnosporia** (Wight et Arn.) Benth. et Hook. *Gen. Pl.* I, 365 (1862). Standard species: *G. montana* (Roxb.) Benth. (*Celastrus montanus* Roxb.).

Nomina rejicienda: *Burglaria* Wendl. ex Steud. *Nomencl. Bot.* 129 (1821), *nomen nudum. Scytophyllum* Eckl. et Zeyh. *Enum. Pl.* 124 (1835). *Encentrus* C. Presl in *Abhandl. Böhm. Gesellsch. Wissensch.* Folg. 5, III, 463 (1844). *Polyacanthus* C. Presl, *loc. cit.*

(*b*) *Names Invalidated by Earlier Homonyms*

462 (Cyper.) **Kyllinga** Rottb. *Descr. et Icon. Pl.* 12 (1773)—non *Killinga* Adans. *Fam. Pl.* II, 498, 539 (1763). Standard species: *Kyllinga monocephala* Rottb.

Nomen rejiciendum: *Thryocephalon* J. R. et G. Forst. *Charact. Gen. Pl.* 129, t. 65 (1776).

974 (Liliac.) **Anguillaria** R. Br. *Prodr. Fl. Nov. Holland.* I, 273 (1810)—non Gaertn. *Fruct. et Semin. Pl.* I, 372 (1788). Standard species: *A. dioica* R. Br.

1032 (Liliac.) **Laxmannia** R. Br. *Prodr. Fl. Nov. Holland.* I, 285 (1810)—non J. R. et G. Forst. *Charact. Gen. Pl.* 93, t. 47 (1776), nec Schreb. in *L. Gen. Pl.* ed. 8, II, 800 (1791). Standard species: *L. gracilis* R. Br.

Nomen rejiciendum: *Bartlingia* F. Muell. [ex Benth. *Fl. Austral.* VII, 63 in obs. (1878), *nomen synonymum*] in *Journ. and Proc. R. Soc. New S. Wales*, XV, 232 (1882)—non Reichb. in *Flora*, VII, 241 (1824), nec Brongn. in *Ann. Sci. Nat.* X, 373 in adnot. 2 (1827).

1037 (Liliac.) **Johnsonia** R. Br. *Prodr. Fl. Nov. Holland.* I, 287 (1810)—non Dale ex Mill. *Gard. Dict. Abridg.* ed. 4, II (1754), nec Adans. *Fam. Pl.* II, 343 (1763). Type species: *J. lupulina* R. Br.

1617 (Orchid.) **Laelia** Lindl. *Gen. and Sp. Orchid. Pl.* 96, 115 (1831)—non Adans. *Fam. Pl.* II, 423 (1763). Standard species: *L. grandiflora* (Llave et Lexarza) Lindl.

Nomen rejiciendum: *Amalia* Reichb. *Deutsch. Bot.* I, 52 (1841).

2068 (Prot.) **Banksia** L. f. *Suppl. Pl.* 15, 126 (1781)—non J. R. et G. Forst. *Charact. Gen. Pl.* 7, t. 4 (1776). Standard species: *B. integrifolia* L. f.

Nomen rejiciendum: *Sirmuellera* Kuntze, *Revis. Gen. Pl.* II, 581 (1891).

3182 (Saxifrag.) **Bergenia** Moench, *Meth. Pl.* 664 (1794)—non *Bergena* Adans. *Fam. Pl.* II, 345 (1763). Type species: *Bergenia bifolia* Moench.

Nomen rejiciendum: *Geryonia* Schrank in *Flora*, I, 230 (1818).

3185 (Saxifrag.) **Boykinia** Nutt. in *Journ. Acad. Nat. Sci. Philad.* VII, 113 (1834)—non Raf. (1817). Type species: *B. aconitifolia* Nutt.

Nomina rejicienda: *Telesonix* Raf. *Fl. Tellur.* II, 69 (1836). *Therofon* Raf. *New Fl. and Bot. N. Amer.* IV, 66 (1836).

3204 (Saxifrag.; jam Stylid.) **Donatia** J. R. et G. Forst. *Charact. Gen. Pl.* 9, t. 5 (1776)—non Loefl. *Iter Hispan.* 193 (1758). Type species: *D. fascicularis* J. R. et G. Forst.

Nomen rejiciendum: *Orites* Banks et Soland. ex Hook. f. *Bot. Antarct. Voy. I*, II, 282 (1846), *nomen synonymum.*

4957 (Tiliac.) **Sparmannia** ("Sparrmannia") L. f. *Suppl. Pl.* 41, 265, 468 (1781)—non Buc'hoz, *Pl. Nouvellem. Découv.* 3 (1779). Type species: *S. africana* L. f.

8887 (Compos.) **Amellus** L. *Syst. Nat.* ed. 10, II, 1225 (1759)—non P. Browne, *Civ. and Nat. Hist. Jamaic.* 317 (1756) Standard species: *A. lychnites* L.

Nomen rejiciendum: *Haenelia* Walp. *Repert. Bot. Syst.* II., 974 (1843).

B. Name Proposed by Australian Botanists (Austral. Bot., Motion)

7692 (Bignoniac.) **Haussmannia** F. Muell. *Fragm.* IV (1864), 148; non *Hausmannia* Dunker (1846), nomen genericum plantae fossilis. Type species: *H. jucunda* F. Muell.

C. Name Proposed by A. W. Exell (Brit. Bot. 38.)

3106 (Capparidaceae) **Boscia** Lam. in *Encycl. Méth. Illustr. Genr.* t. 395 (1797)—non Thunb. *Prod. Pl. Cap.* x et 32 (1794). Type species: *Boscia senegalensis* (Pers.) Lam. ex Poir.

Nomen rejiciendum: *Podoria* Pers. *Syn.* II, 5 (1806).

D. Name Proposed by M. L. Fernald (Brit. Bot. 39.)

957 (Liliac.) **Stenanthium** (A. Gray) Kunth, *Enum.* IV, 189 (1843); based on *Veratrum*, 2 subgen. *Stenanthium* A. Gray, *Ann. Lyc. N.Y.* IV, 119 (1837). Standard species: *S. angustifolium* (Pursh) Kunth.

Nomen rejiciendum: *Anepsa* Raf. *Fl. Tellur.* pt. IV, 27 (1836–38).

E. Name Proposed by T. A. Sprague (Brit. Bot. 40.)

3953 (Humiriac.) **Humiria** Jaume St Hil. *Expos.* II (1805) 374. Standard species: *Humiria balsamifera* (Aubl.) Jaume St Hil.

Nomen rejiciendum: *Houmiri* Aubl. *Hist. Pl. Guiane Franç.* I (1775), 564, t. 225.

Appendix III. SUPPLEMENTUM. NOMINA GENERICA HOMONYMA CONSERVANDA

A paper is being prepared by A. Rehder (Arnold Arboretum), C. A. Weatherby (Gray Herbarium), R. Mansfeld (Berlin), T. A. Sprague (Kew) and M. L. Green (Kew) for presentation to the Amsterdam Congress.

Appendix III bis. NOMINA GENERICA CONSERVANDA PLANTARUM FOSSILIUM

[No draft yet submitted—see Jongmans, Halle, Gothan, App. III*b*.]

Appendix III ter. NOMINA SPECIFICA CONSERVANDA

[See Art. 21 bis.]

Appendix IV. NOMINA AMBIGUA

[No list yet submitted.]

Appendix V. NOMINA CONFUSA

Names proposed by A. Becherer.

(Vorschlag II.)

1. The names *Asplenium Trichomanes dentatum* L. *Sp. Pl.* (1753), 1080 and *A. Trichomanes ramosum* L. *loc. cit.* 1082, must be rejected since they are liable to be confused with the name *A. Trichomanes* L. *Sp. Pl.* 1080. The valid names are *A. dentatum* L. (1759) and *A. viride* Huds. (1762).

[The names *A. Trichomanes dentatum* and *A. Trichomanes ramosum* are intrinsically invalid, since they were not published as *binary* combinations (see Art. 27).—T. A. S.]

2. The name *Juncus alpino-articulatus* Chaix apud Vill. *Hist. Pl. Dauph.* 1 (1786), 378, must be rejected because it is liable to be confused with the formula for the hybrid *J. al-*

pinus × *articulatus*—see A. Becherer in *Ber. Schweiz. Bot. Ges.* XXXVIII (1929), 144. The valid name is *J. alpinus* Vill. (1787).

[The three names *Asplenium Trichomanes dentatum*, *A. Trichomanes ramosum* and *Juncus alpino-articulatus* are *not* nomina confusa as defined in Art. 64. *Juncus alpino-articulatus* might be considered as an example of a name to be rejected under Art. 4 (2): "to avoid or to reject the use of forms and names which may cause error or ambiguity or throw science into confusion", but that article is a *principle*, not a *rule*.—T. A. S.]

APPENDIX VI. REPRESENTATIVE BOTANICAL INSTITUTIONS RECOGNIZED UNDER ART. 36

Tentative list proposed by T. A. Sprague and M. L. Green. (Brit. Bot. 41.)

Under Art. 36, publication may be effected by distribution of printed matter or "indelible autographs" to specified representative botanical institutions. A provisional list of such institutions, arranged in twenty *geographical*[1] areas, is submitted for consideration. It is suggested that, *in the future* (starting from January 1, 1936), in order to secure publication in this special way, at least twenty copies should be distributed, one to a recognized institution in each geographical area. Each isolated case of "distribution among representative institutions" that has occurred in the past, should be considered on its own merits.

This list has been prepared merely *as a basis for discussion* by the Executive Committee or by such special Committee as may be appointed for the purpose.

I. *Europe*

(1) AUSTRIA AND HUNGARY. Naturhist. Mus., *Wien*; Bot. Inst., Univ., *Wien*; Magyar Kir. Nemzeti Mus., *Budapest*.

[1] A geographical basis for the list is desirable, so that a botanist may not be obliged to travel too far in order to consult a particular work.

(2) CZECHOSLOVAKIA AND POLAND. Bot. Inst., Charles Univ., *Praha*; Bot. Inst., Deutsch. Univ., *Praha*; Bot. Inst., Univ., *Kraków*; Bot. Inst., Univ., *Warszawa*.

(3) FRANCE. Mus. Nat. Hist., *Paris*.

(4) GERMANY. Bot. Mus., *Berlin-Dahlem*.

(5) GREAT BRITAIN. Roy. Bot. Gard., *Kew*; Brit. Mus. (Nat. Hist.), *London*.

(6) ITALY. Mus. Bot., Univ., *Firenze*; Ist. Bot., Univ., *Roma*.

(7) NETHERLANDS AND BELGIUM. Rijks Herb., *Leiden*; Bot. Mus. en Herb., Rijks Univ., *Utrecht*; Jard. Bot., *Bruxelles*.

(8) SCANDINAVIA AND DENMARK. Naturhist. Riksmus., *Stockholm*; Library, Univ., *Uppsala*; Bot. Mus., Univ., *Oslo*; Bot. Mus., Univ., *Copenhagen*.

(9) SPAIN AND PORTUGAL. Jard. Bot., *Madrid*; Mus. Ci. Nat., *Barcelona*; Jard. Bot., *Coimbra*.

(10) SWITZERLAND. Conserv. Bot., *Genève*; Bot. Mus., Univ., *Zürich*.

(11) U.S.S.R. Jard. Bot., *Leningrad*; Herb., Univ., *Moskau*.

II. *Africa*

(12) SOUTH AFRICA. Bolus Herb., *Cape Town*; Dept. Agric., *Pretoria*.

III. *Asia*

(13) INDIA AND MALAYA. Bot. Gard., *Calcutta*; Bot. Gard., *Singapore*; Bot. Gard., *Buitenzorg*; Bureau of Science, *Manila*.

(14) CHINA. Metrop. Mus. Nat. Hist., *Nanking*.

(15) JAPAN. Imperial University, *Tokyo*.

IV. *Australasia*

(16) AUSTRALIA. Nat. Herb., *Melbourne*; Nat. Herb. N.S. Wales, *Sydney*.

(17) NEW ZEALAND. Dominion Museum, *Wellington*.

V. *America*

(18) CANADA. Nat. Herb., *Ottawa.*

(19) UNITED STATES. Gray Herb., *Cambridge* (*Mass.*); New York Botanical Garden; U.S. Nat. Mus., *Washington.*

(20) WEST INDIES AND SOUTH AMERICA. Bot. Gard., *Trinidad*; Jard. Bot., *Rio de Janeiro*; Mus. Nac. Hist. Nat., *Buenos Aires*; Mus. Nac., *Montevideo*; Mus. Nac., *Santiago de Chile.*

APPENDIX VII. NOMENCLATURE OF GARDEN PLANTS

[See International Rules, ed. 3, 112, 113.]

APPENDIX VII BIS. LIST OF WORKS TREATED AS NOT VALIDLY PUBLISHED, OWING TO THE NOMENCLATURE USED IN THEM BEING CONTRARY TO THE INTERNATIONAL RULES

[APPENDIX "IX"]

Proposed by A. J. Wilmott.
(Brit. Bot. 42.)

Section 1. *Works not employing the Linnaean Biverbal Nomenclature for Species*

ARDUINO, P. 1759: *Animadvers. bot. specimen.* (*Note.* The "specimen alterum" (1763) contained biverbal nomenclature for species.)

BROWNE, P. 1756: *Hist. Jamaica.*

—— 1789: *Hist. Jamaica*, ed. 2.

BUC'HOZ, P. J. 1770: *Traité...Plant. Lorr. et les trois Évêchés* (11 vols.).

FABRICIUS, P. C. 1759: *Enum. Plant. Hort. Helmstad.*

—— 1763: *Enum. Plant. Hort. Helmstad.* ed. 2.

—— 1776: *Enum. Plant. Hort. Helmstad.* ed. 3 (posthumous).

GARSAULT, F. A. DE. 1764: *Les figures des Plantes et anim. . . . Mat. Med.*

—— 1765: *Explication abrégée de sept cents dix-neuf plantes.*

—— 1767: *Descr. . . . des plantes* (4 vols.).

GÉRARD, L. 1761: *Flora Gallo-provincialis.*

GMELIN, S. G. 1768–9: *Flora Sibirica*, vols. III and IV.

HALLER, A. VON. 1768: *Hist. Stirp. Helv.* ed. 2.

HILL, J. 1760: *Flora Britannica.*

—— 1755: *The Useful Family Herbal.*

—— 1756: *The British Herbal.*

MILLER, P. 1754: *Abridgement of the Gardeners Dictionary*, ed. 4,

—— ?: ? ed. 5, non vidi.

—— 1758: *The Gardeners Dictionary*, ed. 7.

SCHMIDEL, C. C. 1762: *Icones Plantarum.*

—— 1793: *Icones Plantarum*, ed. 2.

SCOPOLI, J. A. 1760: *Flora Carniolica.*

SÉGUIER, J. F. 1754: *Pl. Veron.*, Suppl.

ZINN, J. G. 1757: *Cat. plant. hort. acad. et agri Gottingensis.*

The authors of the publications listed above either wrote no further botanical works or themselves entirely rejected the nomenclature of these earlier works in their later ones. Those who did not accept the Linnaean nomenclature were elderly men like Haller, or outstanding botanists who had themselves formulated a classification of plants on different lines, e.g. Gleditsch (mentioned under "dubia" below).

Section 2. *Works containing Generic Names only, but these Generic Names in accordance with those of Works listed in Section* 1, i.e. *not Linnaean Nomenclature but that of "Multiverbalist" Authors*

BOEHMER, G. R. 1760: in Ludwig, C. G., *Definitiones Generum Plantarum.*

LUDWIG, C. G. 1757: *Inst. Hist. Phys. Reg. Veg.* ed. 2.

MITCHELL, J. 1769: *Dissert. Bot. et Zoolog.*—II, pp. 21—Plant. genera...in Virginia observata. (N.B. see p. 46: the completion of part II is dated March 11, 1741.)

Section 3. *Work containing Univerbal Nomenclature for Species*

EHRHART, F. 1780: *Phytophylacion.*

Section 4. *To be rejected to prevent the Invalidation of well-established Names*

GANDOGER, M. 1883–91: *Flora Europae*, 27 vols. (in 13). This nomenclature might perhaps be regarded as contrary to Art. 28, sentence 4, but it is preferable to include the work here. If these names are not invalidated they are likely to necessitate the rejection of a large and increasing number of names by Art. 61 (later homonyms).

ADANSON, M. 1763: *Familles des Plantes* (2 vols.). The names now in use which were taken from this work were adopted by Gaertner, Willdenow, De Candolle and others just as Linnaeus adopted names from Tournefort: they would rarely be lost if this work was rejected. There are, however, many names not yet taken up which will necessitate much change or conservation if the work is not rejected. It certainly was not intended to be part of the Linnaean nomenclature (see vol. 1).

"DUBIA." Inclusion or otherwise requiring discussion.

GLEDITSCH, J. G. Possibly all botanical works. Some of this author's works are non-Linnaean, but others cite Linnaean specific names. The citation of these is, however, often merely in chronological order in synonymy, and his last work has certainly multiverbal nomenclature for species.

Section 5. *Miscellaneous*

NECKER, N. J. DE. 1790: *Elementa Botanica.* (4 vols.) The names of this author which have been used as if they

were names of genera are, however, names of his "species naturales" (see p. 4), and not of his genera (see p. xxiii). Although this makes them illegitimate under the Rules, it would be better to include in the Appendix such works concerning which there would otherwise be much argument.

Note. It might be well to list here also works known to have been unpublished. Although the names contained are illegitimate there is nothing to indicate to a nomenclator that the work was never published, and confusion may result therefrom. Only works important as affecting nomenclature should be listed.

It might also be well to include a section in which were listed any works which are important in nomenclature but which are so scarce that

(*a*) the names contained in them were long overlooked and caused much change in nomenclature when discovered, and at the same time are still so scarce that

(*b*) they are in fact not available for consultation by any but a very few nomenclators.

Appendix VII ter

[Aids to the formation of names of genera and their subdivisions.]

La méthode de types et la nomenclature analogique, par A. J. de Sampaio (*Ann. Acad. Bras. Sci.* VI, No. 4, 173–179: 1934).

This paper is unfortunately too long for inclusion in the Synopsis. It may be consulted in the original place of publication.