# BULLETIN OF MISCELLANEOUS INFORMATION No. 2 1935

ROYAL BOTANIC GARDENS, KEW

# V.—ADDITIONS AND AMENDMENTS TO THE INTERNATIONAL RULES OF BOTANICAL NOMENCLATURE, Ed. 3.

The various proposals printed below have been contributed by the following twelve botanists:—

- (1) Royal Botanic Gardens, Kew: J. S. L. Gilmour, M. L. Green, T. A. Sprague.
- (2) Department of Botany, British Museum: J. E. Dandy, A. W. Exell, J. Ramsbottom, G. Tandy, A. J. Wilmott.
- (3) Botanical Museum, University of Utrecht: J. Lanjouw.
- (4) Gray Herbarium, Harvard University: M. L. Fernald.
- (5) W. T. Stearn (London).
- (6) Fr. Verdoorn (Leiden).

The appearance of these proposals in one number of the Kew Bulletin is simply a matter of practical convenience, responsibility for the individual motions resting solely on their proposers.

In order to facilitate comparison with the relevant Articles and Recommendations, the motions are arranged in the order of the International Rules, ed. 3; and each is supplied with a running number for purposes of reference.

Some of the proposals, e.g. nos. (7) and (9), and nos. (10) and (29), are mutually complementary; others, e.g. nos. (16) and (17), offer alternative solutions of the same problem, based on conflicting nomenclatural views. They are all brought forward with the desire to perfect the International Rules in the interests of botanical research. Nomenclature is a means to an end, not an end in itself.

Many of the motions consist of small but significant textual amendments, which obviously could not be published until the precise text of the International Rules was known. An English version of the Rules was issued in advance in the Journal of Botany for June 1934, but the third edition, containing the official text, did not appear until February 1935. Hence the delay in the publication of the present proposals.

#### PROPOSALS.

(1) Art. 2, line 7. That the word "especially" be inserted before "in future nomenclature."

Remarks. The present wording gives the impression that the Recommendations are concerned solely with future nomenclature,

which is not the case. Rec. XLIII, for example, applies also to names already published.

T. A. SPRAGUE.

(2) Art. 14: in line 2 delete "modification or," and replace the second use of the word "modification" by the word "subdivision."

Argument. The present wording is not uniform; the alteration suggested conforms with the French text.

A. J. WILMOTT.

(3) Art. 19. Add:—"The works listed in Appendix IX, in which works nomenclature contrary to or in conflict with that legitimised by these Rules is used, are to be regarded as not validly published, although they appeared subsequently to the dates given in Art. 20."

Argument. These works include those in which "multiverbal names" are used for species, concerning which a proposal was made to the last Congress. The issue was somewhat confused there by the fact that the motion was changed in an endeavour to meet certain objections, which resulted, however, in misunderstandings. The present proposal is framed in such a way as to provide a mechanism under the Rules by which any work can be rejected if it is found to create undesired difficulties to the smooth operation of the Rules. The reasons for inclusion of certain works suggested for the Appendix are given with the lists.\*

A. J. WILMOTT.

(4) Art. 20. That the following paragraph be added 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 unite the two genera, chose that name citing Thea as a synonym."

Remarks. The above additional paragraph is proposed not so much to settle the question as to whether the generic name Thea or Camellia is to be adopted for the combined genus, but in order that a decision should be reached as to whether the two volumes of the Species Plantarum should be regarded as having been simultaneously published. If strict priority is adhered to, Thea is the correct name for the genus, as pointed out by Rehder in Journ. Arnold Arb. V (1924) 238.

<sup>\*</sup> See proposal No. (42).

Under Art. 20, generic names which appear in L. Sp. Pl. ed. 1 (1753) are associated with the descriptions given in L. Gen. Pl. ed. 5 (1754), so that these two works are treated as one for the purpose of the starting-point of nomenclature, although they actually appeared in different years. The two volumes of the Species Plantarum were treated as inseparable parts of one work until comparatively recently when it was discovered by B. D. Jackson (Journ. Bot. 1923, 174) that the second volume appeared three months later than the first.

Since legitimate botanical nomenclature actually starts with particular works of Linnaeus which themselves appeared in different years (1753 and 1754) but are for nomenclatural purposes regarded as both dating from 1753, it is inconsistent to allow nomenclatural priority to the first volume of Species Plantarum which appeared only three months before the second.

M. L. GREEN.

(5) Art. 20. For "at the following dates" read "with the

following works."

Remarks. At present there is some difficulty in interpreting (f) Fungi caeteri, 1821–32 (Fries, Systema mycologicum), which will be removed if it is clear that the work is the important point (see Trans. Brit. Mycol. Soc. XVIII (1934) 314. For the alternative view see C. W. Dodge in Ann. Missouri Bot. Gard. XXI (1934) 709.) The Elenchus Fungorum was published in 1828 and was re-issued in 1830 as a supplement to the Systema. The Elenchus should be regarded as part of the Systema. See Trans. Brit. Mycol. Soc. XVIII (1934) 316.

(6) Rec. IX for "are designated preferably by" read "are

preferably taken from."

Argument. The existing formulation would appear to require Polygonaceaeales, and not Polygonales. Discussion of these minor matters was waived at Cambridge owing to the Chairman's ruling that they should be left for correction by the Editorial Committee.

A. J. WILMOTT.

(7) Art. 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."

Argument. See under Art. 24.

A. J. WILMOTT.

(8)\* Art. 23. Alter the wording to read: "Names of families

<sup>\*</sup> No. (8) is proposed if No. (7) and (9) are rejected.

are taken from the name or ancient name of one of their present genera, and end in -aceae."

Argument. The present wording permits the retention of a family name after the genus from whose name it was taken has been removed to another family. The suggested wording is probably what was intended.

Note. The French text retains the old erroneous form which was responsible for the change suggested by the British Sub-committee, for as it stands it would seem to require the use of such forms as Salixaceae, and not Salicaceae.

A. J. WILMOTT.

(9) Art. 24. Replace the first sentence by the following:—"Names of sub-families (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 sub-tribes (subtribus) by adding -inae.

Argument. These proposals put forward at the last Congress by the British Sub-committee are suggested again for the following reasons. The examples here given indicate the need for changing

the existing loose wording of the Rules concerned.

The name of a family of Diatoms is *Chaetoceraceae* (original spelling) or *Chaetocerotaceae* (orthographically correct form). Under the present working of Art. 23 the less correct form must be used, whereas the form of words used by the British Sub-committee was chosen to enable the correct forms to be used. This avoids the necessity of memorising all legitimate incorrect forms. Under the present Rules it would be possible to have one form valid (with its correct ending) for the name of the family and the other equally valid for a similar name of a sub-family.

Euodiaceae, the name of another family of diatoms, is taken from Euodia Bailey 1861. It has been shown that Euodia gibba Bailey 1861 is Hemidiscus cuneifolia Wall 1860, and the name Euodia lapses into synonymy. It seems undesirable in such circum-

stances to retain *Euodiaceae* as the name of the family.

One solution might be to propose *Euodia* for conservation, but *Euodia* Bailey was invalid owing to the existence of *Euodia* Forster 1776 (Char. Gen. 13 t. 7). If the name of the family must by Rule be formed from a valid generic name included in the family, any disharmony is avoided.

A. J. WILMOTT.

(10) Rec. X. That the following be inserted after Rec. X g: "Rec. X h. To give a feminine form to all personal generic names, whether they commemorate a man or a woman."

Remarks. See observations under no. (29). FR. VERDOORN.

(11) Art. 31: (2) Example of a sexual hybrid: delete the "S." before Lycopersicum.

Argument. This example must be made uniform with those of sexual hybrids. As we are dealing with a "formula" it seems undesirable to repeat the generic name. But if the generic name is not repeated the formulation of the rule is slightly inaccurate.

A. I. WILMOTT.

(12) Art. 43. Interchange the comma at the end of the second line with the semicolon in the third line.

Argument. As punctuated at present the Rule is ambiguous in the English text; cf. the French text.

A. J. WILMOTT.

(13) "Art. 47 bis. When a name, which is neither nomen dubium nor nomen confusum (see Art. 63 & 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."

Argument. This was the substance of a proposal which I originally made to the British Sub-committee. It is scarcely necessary to reject a name or epithet which, possibly through no fault of the original author other than insufficiency of description (a fault shared by many names not ambiguous at any time), has been variously interpreted by subsequent authors. All that is required is a form of citation which permits a clear indication of the usage actually employed by a writer during the period, sometimes comparatively short, when diverse interpretations are being upheld. example of Rosa villosa L. appears to be more properly dealt with by citation of an emending author, as under Art. 47. The object of this proposal was to make clear the distinction between those cases where the confusion was made in the original publication—cases often without any satisfactory solution (the true nomina confusa)—and the mere nomina ambigua where there was no original confusion but only A. J. WILMOTT. subsequent disagreement.

(14) Art. 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.).

Argument. This proposal is put forward as a solution of the difficulties arising from Art. 54, last sentence. These difficulties appear to be due to the admixture of taxonomy (change of rank, reclassification) with nomenclature, which does not need the citation of a second author for the attainment of precision. In Zoology it has

not been found necessary to cite a second author. The precision is obtained by the citation of the author on whose publication the type depends.

The citation of a second author may assist in the determination of later homonyms, but the loss of this advantage may be much more than balanced by the gain in simplicity and the avoidance of the trouble under Art. 54.

A. J. WILMOTT.

(15) Rec. 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.

Remarks. This method of citation at once distinguishes a misidentification from a later homonym. W. T. STEARN.

(16) Art. 54 line 7. 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.

J. RAMSBOTTOM.

(17) Art. 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).

 $\it Remarks.$  The text of Art. 54, paragraph 2, is ambiguous, since it does not make it clear to whom the accepted combination

isto be attributed, whether to the original author of the combination-who misapplied it, or to the first subsequent botanist who applied it "correctly." Under Art. 47, however, "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." Hence it is not permissible to replace Carrière's name by that of Sargent as the author of the combination Tsuga Mertensiana (Bong.) published by the former, though Sargent's name may be appended as an emending author, the correct full citation in that case being Tsuga Mertensiana (Bong.) Carr. em. Sarg.

The view that a combination should be attributed to the first author who applied it *correctly* is open to very grave objections. Priority of publication is one of the most important general principles on which the Rules are based (Art. 16). The importance of the *date* of publication is shown by the fact that an entire section of the Rules (section 6, Art. 37–45) is devoted to it. Since differences of taxonomic opinion frequently arise as to the "correct" application of a name, the effect of ascribing the new combination to the first author who applied it "correctly" would be to make the date of publication either uncertain or a mere matter of taxonomic opinion.

The case of Daphnopsis americana (Mill.) is instructive. This combination was based by J. R. Johnston (Proc. Boston Soc. Nat. Hist. xxxiv. 242: 1909) on Laurus americana Mill. (1768). Under the type-method, Daphnopsis americana (Mill.) J. R. Johnston is strictly synonymous with Laurus americana Mill., the "(Mill.)" indicating the type of the epithet. This is not affected by the fact that Johnston, rightly or wrongly, cited Daphne tinifolia Sw. and Daphnopsis tinifolia Griseb. in synonymy, and cited also a specimen (no. 257) which he had collected on Margarita Island. Urban (Arkiv för Botanik, xvii. no. 7, 44: 1921) stated that the specimen cited by Johnston was not Daphnopsis americana (Mill.) J. R. Johnston, but D. caribaea Griseb., but he did not think it necessary on that account to reject J. R. Johnston as the author of the combination, but merely added "(excl. specim.)" to the citation. Urban also cited Daphne tinifolia Sw. and Daphnopsis tinifolia Griseb. as synonyms of Daphnopsis americana. Fawcett and Rendle (Journ. Bot. 1925, 51), stated that the specimens of Laurus americana Mill. and Daphne tinifolia Sw. in Herb. Mus. Brit. represented different species. They considered that the combination Daphnopsis americana should, under a type-system, be associated with the plant (Houston's Vera Cruz specimen) on which the epithet americana was originally based by Miller: on this point we are all agreed. Fawcett and Rendle proceeded, however, to set out the synonymy of the three species concerned, as follows:—

"1. Daphnopsis americana Johnston (1909), a synonym of D. caribaea Griseb. (1860) (fide Urban). Lesser Antilles.

2. Daphnopsis americana Urban (1921), a synonym of

D. tinifolia Griseb. Jamaica, Hispaniola.

3. Daphnopsis americana nob., Laurus americana Mill.

At the time when their paper was written, it was not obligatory to cite the original author of an epithet in brackets after a new combination, and the name "Daphnopsis americana J. R. Johnston" was admittedly somewhat ambiguous. The situation has now become completely changed by the provision in Art. 49, under which "the original author of an epithet must be cited in parenthesis," and the recognition (under Art. 54) that "the citation in parenthesis (under Art. 49) of the name of the original author . . . indicates the type of the epithet."

If the view put forward by Fawcett and Rendle in 1925, and supported by J. Ramsbottom in proposal no. (16) of this series, is maintained, the date of publication of the accepted combination Daphnopsis americana (Mill.) instead of being a matter of ascertainable fact, becomes a mere matter of opinion. If J. R. Johnston was correct in his taxonomic work on Daphnopsis americana (Mill.) the date of that combination is 1909; if Urban was correct, the date is 1921; if Fawcett and Rendle were correct, the date is 1925. This will lead to an impossible situation. T. A. SPRAGUE.

(17 bis). Art. 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."

Remarks. This proposal and no. (17) are mutually comple-T. A. SPRAGUE. mentary.

(18) Art. 58: Omit "when a sub-division of a species becomes a species"; after the word "group" in the third line add "above the rank of species"; delete "or epithet" and "or combination." A. I. WILMOTT.

(19) Art. 58 bis. In the case of species and their sub-divisions, 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.

Argument. The aim of this proposal is to attain as much fixity of epithet regardless of rank as can be obtained without the inconvenience of having to replace established specific epithets by unknown epithets of lower rank. Such fixity of epithet would produce a desirable fixity of type for a given group. As the Rules now stand a given group may be legitimately designated by one epithet as a species, by another as a sub-species, by a third as a variety, and so on, each epithet having a different type. The present proposal would ensure that once a group had at any time been given the rank of species, its epithet and type would be fixed so long as the known synonymy remained unchanged. A. J. WILMOTT.

(20) Art. 60. At the end of the second sentence add "except as indicated under Art. 61."

Argument. As Art. 60 and 61 now stand, there appears to be some contradiction, for by Art. 60 an earlier "illegitimate homonym should not be taken into consideration for purposes of priority," and therefore should not be held to antedate the later homonym. A. J. WILMOTT.

(21) Art. 60 (1) to read as follows:—" 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."

Remarks. The new wording is designed to remove any possible ambiguity regarding the effect of Art. 60 (1). T. A. SPRAGUE.

(22) Art. 60: 1) delete "there" and substitute "its author cited a name which with his taxonomic interpretations and synonymy." 2) after "author" add "with his taxonomic interpretations and synonymy."

Argument. Salisbury, in a work (Prodromus) in which he deliberately replaced existing specific epithets by new ones, gave the name *Ulmus procera* to the plant which he believed to be *Ulmus* campestris L. (emend. Mill.). Ulmus procera Salisbury is therefore as illegitimate as the other names in the same work, although by Ulmus campestris Linnaeus apparently intended the commonest wild European Elm (=U. montana Stokes in With.), the only

Elm wild in Sweden and the only one in his herbarium. Salisbury, with his interpretation of *U. campestris* L., could not, according to these Rules, put aside the Linnean epithet and use a new one. The view that although throughout the work Salisbury was acting illegally, he nevertheless in this case accidentally acted according to the Rules and did a right thing, i.e. gave a new epithet to a plant which is now known to require one, is contrary to established nomenclatural custom, which was established definitely in the last edition of the Rules by the rejection of willkürliche Namensveränderungen. *Ulmus procera* was such a deliberate name-change, and the position should be made definite by the insertion of the words suggested in this proposal.

A. J. WILMOTT.

(23) Art. 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. 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.—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.

A. J. WILMOTT.

#### (24) Art. 62. Add the following Example:—

Ulmus campestris L. Sp. Pl. 225 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).

J. S. L. GILMOUR.

(25) Art. 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. 572 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).

Remarks. Typical nomina ambigua are names which, originally applied to a group consisting of two or more elements and having no obvious type, have been restricted by some subsequent botanists to one of the original elements, and by other botanists to another. Thus Loiseleur, Bertoloni, Nyman, Briquet, Fiori et Paoletti, Schinz et Thellung, L. H. Bailey and Rehder used the name "Lavandula Spica L." in the sense of "Lavender," L. officinalis Chaix; whereas Chaix, Gingins, Bentham, De Notaris, Masters, Flückiger, Greenish and Sprague et Nelmes used it in the sense of "Spike," Lavandula latifolia Vill. The name Lavandula Spica L. has, therefore, become completely ambiguous. This ambiguity cannot be removed in any practical way, even by citing the name of an emending author. If the name is cited "Lavandula Spica L. em. Loisel." it may require considerable investigation, by those who are unaware of the above-mentioned paper, to discover what is meant. Furthermore, many of those who constantly employ botanical names, but are not taxonomic botanists (e.g. physiologists, ecologists, gardeners, foresters, pharmacists) seldom add the name of the author. Hence Art. 62 and the example of Lavandula Spica are absolutely in accordance with the general principle laid down in 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."

M. L. GREEN and T. A. SPRAGUE.

- (26) Art. 62. Delete, and replace by Art. 47 bis. A. J. WILMOTT.
- (27) Rec. XXXVII. Before the last sentence add:—"The connective *secundum* (abbreviated *sec.*) should be used between the names of the original and certifying authors."

Argument. It seems desirable that the connectives used in nomenclature should each be given a precise function and meaning.

A. J. WILMOTT.

(28) Art. 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."

T. A. SPRAGUE.

(29) Art. 70. Add: "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 (Marchesinius), Bazzanius, Herbertus and Pallavicinius, published by S. F. Gray, Nat. Arr. Brit. Pl. I (1821), 683, 689, 704, 705, 775, are treated as unintentional orthographic errors for Riccardia, Marchesinia, Bazzania, Herberta and Pallavicinia respectively" (motion approved by the Sub-committee for Hepaticae).

Remarks. To the present day all hepaticologists, with very few exceptions, have opposed the use of the masculine (original)

form of Gray's generic names.

Most workers on hepaticology, among them the three best and most influential authors Spruce, Schiffner and Evans follow Carruthers (1865) and use the feminine form of these names.

Some authors, however, refused to use Gray's generic names, notwithstanding their undoubted priority and the fact that they had been given to some of the most important and largest genera of Hepaticae. Generally they admit the priority of the masculine form of these names, but do not want to use it as it has almost never been used before. They consider the feminine form as something conflicting with the rules and adopt, therefore, names given by later authors.

As everywhere the principle of priority is not adhered to, great confusion is caused, which should force us to acknowledge as correct the feminine form of these names, as used by Spruce, Schiffner and Evans.

Nearly all problems of the complicated nomenclature of the hepatics would be solved if the above proposal were adopted, if not we should be forced to propose a considerable number of Nomina Conservanda et Rejicienda.

It might be superfluous to assert that the arguments formerly brought against Gray's generic names no longer have any significance in the light of the present Rules.

FR. VERDOORN.

(30) Rec. XLIII. To read as follows:—" 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)."

Remarks. The present wording of Rec. XLIII puts a great burden on those who have to prepare and edit general lists of botanical names. It is often a very long and difficult task to discover whether a particular vernacular name has been used as a pre-Linnean generic name or not.

M. L. GREEN.

(31) Rec. XLIII. For "taken from" read "are former." Argument. As formulated at present, the Recommendation would advise the spelling of epithets such as taxifolia, ranunculifolia etc. with initial capitals, contrary to established usage. Hyssopifolia is an old generic name, but while the wording of the Recommendation remains as at present, it is a misleading example.

A. J. WILMOTT.

(32) That Art. 72 (1) be replaced by the following:—"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 must 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."

Explanatory remarks. The effect of the change will be to standardize the gender of classical generic names. It involves altering the gender of Linnean generic names (Phanerogamae) in only 15 cases. The following names become masculine: Cissus, Cistus, Aspalathus, Scorpiurus, Potamogeton, Tragopogon, Erigeron, Croton, Panax, Styrax. The following become feminine: Hemerocallis and Prinos; and the neuter gender is restored to Nama, Pentapetes and Phyteuma.

Several of the above names have usually been given their correct classical gender, e.g. Cistus, Tragopogon, Erigeron, Croton, Panax, Styrax, Phyteuma. Scorpiurus and Tragopogon will now agree in gender with all modern compounds ending in-urus and -pogon, e.g. Cynosurus and Andropogon. Croton, Styrax and Panax will retain the gender assigned to them in DC. Prodromus, Engl. Pflanzenreich, and Engl. Pflanzenfamilien, and will also be in conformity with modern compounds based on them, e.g. Julocroton, Afrostyrax, and Nothopanax.

It seems desirable to give brief notes on the genders of a few Linnean generic names. The Latin word rumex was either masculine or feminine (Kennedy, Revised Latin Primer, 223), and the masc. gender adopted for *Rumex* by Linnaeus is accordingly retained; atriplex was masc., fem. or neut. in Latin, and therefore remains fem. as in Sp. Pl.; potamogeton was masc. or fem. in Greek, doubtful in Latin, neut. in Sp. Pl.; in accordance with general usage in standard taxonomic works (e.g. Fryer and Bennett, The Potamogetons of the British Isles, Engler's Pflanzenreich), the generic name *Potamogeton* is now treated as masculine.

A word of caution may be required concerning the feminine gender attributed to certain names used in Pliny's Historia Naturalis. Pliny frequently uses a feminine adjective agreeing with the word "herba" understood. Thus he has "Geranion . . . Similis est cicutae," although he (like all other authors) treats geranion as neuter, as is seen from the phrase "Geranion in vino potum" (Plin. Hist. Nat. ed. Harduin. ii. 407, 1.11; ii. 415, 1.15). On the other hand, the masculine and neuter genders used in Pliny present no difficulty. The phrase "Cissos . . . coxendicibus utilis e vino potus" (Plin. ed. Harduin. ii. 339, 1.26) indicates that cissos was masculine in Latin as well as in Greek.

M. L. GREEN.

(33) Art. 73. The delay in the publication of the revised International Rules of Botanical Nomenclature as modified at Cambridge (1930) has prevented the working of the organization drawn up at that meeting.

The following suggestions are put forward for consideration at the Amsterdam (1935) Congress:—

- 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) prepare a list of Representative Botanical Institutes (Appendix VII.)
  - (c) report on the nomenclature of garden plants (Appendix VIII.) and on articles 31–35.
- 8. That the sectional committees receive the names proposed for the list of :

Nomina conservanda familiarum (Appendix II)
Nomina ambigua (Appendix IV)
Nomina dubia\* (Appendix V)
Nomina confusa (Appendix VI)
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.

  J. RAMSBOTTOM.
- (34) General proposal.—That Rec. XXXIX-XLIV be submitted for revision to a select committee of competent scholar botanists, with a view to giving the sanction of Rules to much of the matter contained in these Recommendations; and that an addition be made to Art. 70 to the effect that "when an author has not found his name or epithet in accordance with Articles . . . [of these Rules] is must be altered accordingly."

Argument. As the position now stands the original spelling alone is legitimate—for one species rhynchocarpa, for another rynchocarpa, for one europaea, for another Europaea (for there is no authority in the Rules for departing from the original spelling of geographical epithets with initial capitals, etc.). The whole position requires standardisation: one should not be expected to memorise such details.

The present prescriptions could be submitted to a select committee of competent scholar botanists. There seems to be no linguistic justification for the use of -ii in the genitive, except when the nominative would be -ius, and the form *Babingtoni* would preserve the correct pronunciation of the name. The whole of these prescriptions require some reconsideration if, as here proposed, part of them be changed into Rules.

A. J. WILMOTT.

## (35) APPENDIX II. Nomina familiarum conservanda. List proposed by J. Lanjouw and T. A. Sprague.

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"

<sup>\*</sup> No Appendix for nomina dubia is recognized in the International Rules, ed. 3.—T.A.S.

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 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 conversation, 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.

#### Nomina familiarum conservanda.

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.

<sup>\*</sup> An alternative name ending in -aceae may be used for this family.

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; Legum-

inosae;\* 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.

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

<sup>\*</sup> An alternative name ending in -aceae may be used for this family.

<sup>†</sup> If treated as an independent family.

(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.

# (36) APPENDIX III. 1. ALGAE. List proposed by G. Tandy. 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.)

(Chordariac.) **Chordaria** Ag. Syn. Alg. Scand. XII (1817) emend. (non Link in Schrad. Neues Journ. f. d. Bot. III, 8 (1809)=

Chorda Stackh.) Standard species: C. divaricata Ag.

Link's name was a simple illegitimate change for *Chorda* Stackh. with citation of the same type (*Fucus Filum* Linn.) "melius *Chordaria* vocanda." The recognition of the distinctions between the various species assembled by Agardh under *Chordaria* led to the re-establishment of *Chorda* and the retention of *Chordaria* for some of the remainder. In the restricted sense it has been in use for over 100 years without challenge.

(Élachistac.) Elachista ("Elachistea") Duby, Bot. Gall. 972 (1830). This is a mere regularization of an item in the accepted list. In the third edition of the International Rules (p. 86) the spelling is "Elachista Duby, Mem. Ceram. I (1832) p. 19." In the place cited the spelling is Elachistea and there is reference to Bot. Gall. where the spelling is the same. Of the two forms Elachistea has been very little used

has been very little used.

(Dictyotac.) **Zonaria** Ag. Syn. Alg. Scand. 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).

Zonaria was originally an illegitimate change for Dictyota Lamour. There remains some doubt whether Dictyota is itself

legal but *Zonaria* certainly is not and its ascription to Draparn. is unsupported by any other publication. As emended it has, nevertheless, been used almost exclusively and was not challenged until 1917.

#### **RHODOPHYCEAE.**

(Helminthocladiac.) **Helminthocladia** J. Ag. Spec. Gen. & Ord. Alg. II, 412 (1852) (non Harv. Genera S. Afr. Pl. 396 (1838).). This is one of the changes necessitated by the changing of the homonym rule in 1930. J. Agardh thought that the relegation to synonymy of Harvey's name allowed him to use it again in a different sense.

#### APPENDIX III. 2. PHANEROGAMAE.

#### (37). List proposed by J. E. Dandy.

The generic names listed below are proposed for addition to Appendix III (Nomina generica conservanda). These names are all in current use for genera of *Phanerogamae*, and with one notable exception (n. 1032 *Laxmannia*) have been generally adopted in important botanical works. *Laxmannia* has been passing under two names, both illegitimate, and it is therefore thought advisable to conserve one of them.

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 & 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).

A well-known genus of marine phanerogams, with 2 species. If *Posidonia* is not conserved the genus will have to be called *Alga*; this, for obvious reasons, is highly undesirable. *Posidonia* is the type-genus of the tribe *Posidonieae* and of the family *Posidoniaceae* which is recognised by some authors.

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).

A genus of 4 or 5 species in Africa.

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).

This is a genus of about 12 species in Australasia, Chile, and southeastern Asia. Schoenodum was based on a single taxonomic species, S. tenax Labill., which according to R. Brown (tom. cit. 248 sub Lyginia) is a mixture of two species belonging to different Restionaceous genera. Brown therefore rejected the name Schoenodum, referring the male S. tenax to Lyginia imberbis R. Br. and the female to Leptocarpus tenax (Labill.) R. Br., for which species he retained Labillardiere's specific epithet. Schoenodum was subsequently emended by Kunth (loc. cit.) and was adopted by C. Gay (Hist. Chil., Bot. vi. 152 (1853)) in the sense of Leptocarpus. It may be argued that Schoenodum can be rejected as a nomen confusum under Art. 64, but this is open to doubt since the name was based on two Restionaceous plants which, though now referred to different genera, can scarcely be described as entirely discordant elements. In any event it is as simple to add Leptocarpus to the list of nomina generica conservanda as to add Schoenodum to the list of nomina confusa (Appendix V).

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).

A genus of about 25 species in tropical Africa.

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).

A large and important genus with more than 80 species in the warmer parts of Asia and Australia. Zingiber officinale (common ginger) is widely cultivated. Zingiber is the type-genus of the family Zingiberaceae, the subfamily Zingiberoideae, and the tribe Zingiberaee.

1408 (Orchid.) **Holothrix** Rich. [in Mém. Mus. Hist. Nat. iv. 55 in obs. (1818), nomen nudum] ex Lindl. Gen. & Sp. Orchid. Pl. 257, 283 (1835). Type-species: *H. hispidula* (L. f.) Dur. & Schinz (Orchis hispidula L. f.).

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

A genus with a large number of species in tropical and South

Africa.

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).

A genus with about 10 species in tropical America.

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).

A genus of about 25 species in Indo-Malaya. The name Anoectochilus was substituted by Blume for his earlier Anecochilus, and has been generally adopted.

1704 (Orchid.) **Cirrhopetalum** Lindl. [in Edw. Bot. Reg. x. subt. 832 (1824), nomen nudum] Gen. & 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. & Sp. Orchid. (1827).

A genus with a large number of species in Indo-Malaya, Aus-

tralia, and the Mascarene Islands.

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).

A genus of about 4 species in India. The generic name *Panisea* was based on *Coelogyne* sect. *Panisea* Lindl., Gen. & Sp. Orchid. Pl. 44 (1830).

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).

A genus of 20 or more species in tropical America, some of which are in cultivation.

4627 (Celastr.) **Gymnosporia** (Wight & Arn.) Benth. & Hook. f. 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. & Zeyh. Enum. Pl. 124 (1835). Encentrus C. Presl in Abhandl. Böhm. Gesellsch. Wissensch., Folg. 5, iii. 463 (1844). Polyacanthus C. Presl, loc. cit.

This genus includes a large number of species in the warmer parts of the World. The generic name *Gymnosporia* was based by Bentham and Hooker on *Celastrus* sect. *Gymnosporia* Wight & Arn. Prodr. Fl. Penins. Ind. Or. i. 159 (1834).

#### (b) Names Invalidated by Earlier Homonyms.

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

Nomen rejiciendum: Thryocephalon J. R. & G. Forst. Charact.

Gen. Pl. 129, t. 65 (1776).

This is a genus with a large number of species in tropical and subtropical regions.

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

An Australian genus of about 3 species, for which no other name has been proposed. *Anguillaria* R. Br. is the type-genus of the tribe *Anguillarieae*.

1032 (Liliac.) **Laxmannia** R. Br. Prodr. Fl. Nov. Holland. i. 285 (1810)—non J. R. & 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. & 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).

A genus of about 8 species in Australia. There has been no agreement about the name of this genus, some using Laxmannia R. Br., others Bartlingia F. Muell., neither of which is legitimate. It is proposed to settle the point by conserving Laxmannia, the first name. Laxmannia was adopted by Bentham, Fl. Austral. vii. 63 (1878), by Bentham & Hooker, Gen. Pl. iii. 796 (1883), and by Engler in Engl. & Prantl. Nat. Pflanzenfam. ii, 5. 48 (1888). Bartlingia was adopted by K. Krause in Engl. & Prantl. op. cit., Ed. 2, xv. a. 308 (1930).

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.

An Australian genus of 3 species, for which no other name has been proposed. *Johnsonia* R. Br. is the type-genus of the tribe *Johnsonieae*.

1617 (Orchid.) **Laelia** Lindl. Gen. & Sp. Orchid. Pl. 96, 115 (1831)—non Adans. Fam. Pl. ii. 423 (1763). Standard-species *L. grandiflora* (Llave & Lexarza) Lindl.

Nomen rejiciendum: Amalia Reichb. Deutsch. Bot. i. 52 (1841).

A genus with numerous species in tropical America, some of which are well-known in cultivation and have hybridized freely with *Cattleya*.

2068 (Prot.) **Banksia** L. f. Suppl. Pl. 15, 126 (1781)—non J. R. & 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).

An important genus of about 50 species in Australia. Banksia

L. f. is the type-genus of the tribe Banksieae.

Banksia J. R. & G. Forst. is the oldest name for a large genus of *Thymelaeaceae* for which the name *Pimelea* Banks ex Gaertn. (1788) is already conserved. Conservation of *Banksia* L. f. for the Proteaceous genus would render the conservation of *Pimelea* unnecessary.

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).

A genus of about 8 species in central and eastern Asia. Some of the species are well-known in cultivation and have been considerably hybridized.

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. & Bot. N. Amer. iv. 66 (1836).

A genus of about 9 species in North America and Japan.

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

Nomen rejiciendum: Orites Banks & Soland. ex Hook. f. Bot.

Antarct. Voy. I. ii. 282 (1846), nomen synonymum.

This is a genus of 2 species in temperate South America, New Zealand and Tasmania. It has no legitimate name, for *Orites* has been published only in synonymy. *Donatia J. R. & G. Forst.* is the type-genus of the sub-family *Donatioideae* of *Stylidiaceae*.

4957 (Tiliac.) **Sparmannia** (*Sparmannia*) L. f. Suppl. Pl. 41, 265, 468 (1781)—non Buc'hoz, Pl. Nouvellem. Découv. 3 (1779).

Type-species: S. africana L. f.

An African genus of 3–5 or more species, for which no other name has been proposed. *S. africana* is well-known in cultivation. The spelling *Sparmannia* is proposed for conservation since it has been consistently in use, although the name was spelt *Sparrmannia* by Linn. f.

Rehmannia Libosch. ex Fisch. & Mey. (1835) is conserved against *Sparmannia* Buc'hoz for a genus of *Scrophulariaceae*. Conservation of *Sparmannia* L. f. for the Tiliaceous genus would render the conservation of *Rehmannia* unnecessary.

8887 (Compos.) Amellus L. Syst. Nat., Ed. 10, ii. 1225 (1759) —non P. Browne, Civ. & Nat. Hist. Jamaic. 317 (1756). Standard-species: A. lychnites L.

Nomen rejiciendum: Haenelia Walp. Repert. Bot. Syst. ii. 974

(1843).

This is a genus of 9 or 10 species in South Africa.

Amellus P. Browne is congeneric with Melanthera Rohr (1792), a name in general use for an important genus of African and American Compositae. Conservation of Amellus L. would therefore also ensure the conservation of Melanthera and obviate the confusion which would arise from the transfer of the name Amellus from one genus of Compositae to another.

(38) Name proposed by A. W. Exell.

3106 (Capparidaceae) **Boscia** Lam. in Encyc. 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).

A well-known genus with numerous species in Tropical and South Africa.

(39) Name proposed by M. L. Fernald.

957 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).

Stenanthium was fully characterized by Kunth (1843) and has been consistently used by all authors since, even by Britton, Small and others who hold to strict priority. It is a genus of several species of America and Asia.

Anepsa Raf. (1836–38) has never been taken up, although it has clear priority. Its publication was characteristically trivial, though it meets technical requirements: "his [Gray's] Stenanthium S. G.

of Veratrum is my G. Anepsa."

The rejection of *Stenanthium* would cause serious inconvenience and discredit careful publication; the taking up of *Anepsa* would cause equal inconvenience and several new combinations; it would also mean the acceptance of slipshod publication.

(40) Name proposed by T. A. Sprague.

3953 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.

The original spelling of this generic name is *Houmiri* Aubl. The Latinized form *Humiria* is so widely employed that this spelling is here put forward for conservation. Unless this is done the accepted form of the family name, namely, *Humiriaceae*, will have to be changed.

#### APPENDIX III: SUPPLEMENTUM.

Nomina generica homonyma conservanda.

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

### APPENDIX VI. REPRESENTATIVE BOTANICAL INSTITUTIONS RECOGNIZED UNDER ART. 36.

(41) List proposed by T. A. Sprague and M. L. Green.

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 areas, is submitted for consideration. It is suggested that, in the future (starting from January 1st, 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.

#### APPENDIX VI.

#### 1. Europe.

(1) Austria and Hungary. Naturhist. Mus., Wien; Bot. Inst., Univ., Wien; Magyar Kir. Nemzeti Mus., Budapest.

- (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.

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

III. Asia.

- Bot. Gard., Calcutta; Bot. Gard., (13) India and Malaya. 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.

(42) APPENDIX "IX."

Works treated, under proposal no. (3), as not validly published.

List proposed by A. J. Wilmott.

Section 1: Works not employing the Linnean 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.

Bucнoz, Р. J.: 1770: Traité . . . Plant. Lorr. & les trois Evêches (11 vols.)

Fabricius, P. C.: 1759 Enum. Plant. Hort. Helmstad.

1763: ,, ed. 2.,, ,, ,,

1776 : ed. 3. (posthum.)

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

1765 : Explication abrégé 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 & 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.

1758: The Gardeners Dictionary, ed. 7.

SCHMIDEL, C. C.; 1762: Icones Plantarum

1793: ,, ed. 2

Scopoli, J. A.; 1760: Flora Carniolica. Seguier, 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 Linnean 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 Linnean 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 11th

March, 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.; 1883-1891: 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: Families 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 Linnean 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-Linnean, but others cite Linnean 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.

### VI—NEW OR LITTLE KNOWN PLANTS FROM SOUTH INDIA: V.\*

Impatiens anaimudica C. E. C. Fischer, sp. nov. [Balsaminaceae]; I. travancoricae Bedd. proxima, sed omnibus partibus major, et foliis haud confertis, nervis numerosioribus, ciliis marginalibus e dentibus (nec e sinubus) ortis, sepalis lateralibus 5–7-nervis, alis sanguineis lobis rotundatis, calcari minore, seminibus multo majoribus differt.

An unbranched or slightly branched herb. Stems erect or prostrate, rooting and branching at the nodes, 15–25 cm. high, reddish, lenticelled, younger parts crispately hairy. Leaves alternate, early deciduous from the lower parts of the stem, more persistent towards the apex but not crowded, membranous, broadly ovate to subcircular, acute, base subtruncate, rounded or shortly cuneate, 2–6·3 cm. long, 1·4–4·2 cm. wide, primary nerves 5–7 pairs, evenly

<sup>\*</sup> Continued from Kew Bulletin, 394, 1934.