# Draft BioCode: the prospective international rules for the scientific names of organisms

Prepared and edited by

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Introduction

For an explanation of the origins, scope, and status of the *Draft BioCode*, a comparison of its provisions with those of the existing *Codes*, especially those for bacteriology, botany and zoology, and the suggested implementation of the *BioCode*, please consult the "General Introduction to the *Draft BioCode*" associated with this document, and also being distributed at a half-day symposium on The New Bionomenclature at the Fifth International Congress of Systematic and Evolutionary Biology (ICSEB V) in Budapest, 17-24 August 1996.

The Draft does not yet include Recommendations, Notes, or Examples.

To help in comparing the proposed new rules with the corresponding entries in the current *Codes*, the *International code of nomenclature of bacteria* (Lapage *et al.*, Washington, 1992: abbreviated *BC*). the *International code of botanical nomenclature* (*Tokyo Code*) (Greuter *et al.*, *Regnum Veg.* **131**. 1994, the *ICBN*) and the *International code of zoological nomenclature* (Ride *et al.*, London, 1985: the *ICZN*), cross-references are provided at the end of each paragraph, preceded by a dash. The following, largely self-explanatory, abbreviations have been used: *App.* = Appendix; *Art.* = Article; *G.C.* = General Consideration; *Pre.* = Preamble; *Prin.* = Principle; *Rec.* = Recommendation.

Equivalences between technical terms used in this *Draft* and those that appear in the current *Codes* of biological nomenclature: *BC*, *ICBN*, *ICZN*, and the *International code of nomenclature for cultivated plants* – 1995 (Trehane *et al.*, *Regnum Veg.* 133. 1995, abbreviated *ICNCP*), are given in Table 1. Terms used in the draft "International code of virus classification and nomenclature" (prepared by the International Committee for the Taxonomy of Viruses) parallel the usages of the bacteriological *Code*, but, as they are primarily defined on the basis of taxonomic acceptability, are not their exact equivalents and so are not included in the Table.

For full reference to the publications of existing Codes, see General Introduction to the Draft BioCode.

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Table 1. Equivalence of nomenclatural terms used in the Draft *BioCode* and in the current biological *Codes* (as enumerated in the text). The notions covered by terms given as equivalent are not always exactly the same (e.g., nomenclatural superfluity, an obstacle to legitimacy under the ICBN, is unknown under the BC and ICZN).

BioCode	BC	ICBN	ICNCP	ICZN
Publication and date of	names			
published	effectively published	effectively published	published	published
date	date	date (or priority)	date	priority
precedence	priority	priority	precedence	precedence
earlier	senior	earlier	earlier	senior
later	junior	later	later	junior
Nomenclatural status				
established	validly published	validly published	established	available
registration	validation	registration	registration	_
acceptable	legitimate	legitimate	_	potentially valid
Taxonomic status				
accepted	correct	correct	accepted	valid
Types of names				
name-bearing type	nomenclatural type	nomenclatural type	standard	name-bearing type
nominal taxon	name and type	name and type		nominal taxon
Synonymy				
homotypic	objective	nomenclatural	_	objective
heterotypic	subjective	taxonomic	_	subjective
replacement name	_	avowed substitute	_	explicit replacement
Setting aside the rules				
conservation	conservation	conservation	_	conservation
suppression	rejection	explicit rejection	_	suppression

#### **PREAMBLE**

- 1. Biology requires a precise, coherent and simple system for the naming of organisms used internationally, dealing both with the terms which denote the ranks of taxonomic groups and with the scientific names which are applied to the individual taxonomic groups of organisms (taxa, singular taxon). BC, G.C. 1 & 2; ICBN, Pre. 1; ICZN, Pre. [2] & [4], Art. 1.
- 2. The provisions of this *Code* shall apply to names of all kinds of non-viral organisms, whether fossil or non-fossil<sup>1</sup>, and of some fossil traces of organisms, that are published and established on or after 1 January 2000, and shall govern the choice of name when these names compete among themselves or with earlier names. They shall also, and without limitation of date, provide, in the interest of nomenclatural stability and security, for the protection, conservation, or suppression of all such names, as well as for their correct form and spelling. *ICBN*, *Pre.* 7; *ICZN*, *Pre.*
- 3. Names of non-viral organisms that have been established (i.e., validly published or become available) prior to 1 January 2000 and are not yet covered by adopted Lists of Protected Names are in all other respects (including their subsequent typification) governed by the *International Code of Nomenclature of Bacteria: Bacteriological Code*, the *International Code of Botanical Nomenclature*, or the *International Code of Zoological Nomenclature*, depending on the accepted taxonomic position of their type.
- 4. Special provisions apply to the nomenclature of particular groups of organisms, notably viruses and cultivated plants.
- 5. Separate rules for virus nomenclature, contained in *The International Code of Virus Classification and Nomenclature*, have been established in conformity with Principles I & V of this *Code* and with the thrust of many of its rules. Because names of virus species do not have the binominal form required under this *Code*, and names of virus taxa in other recognized ranks have mandatory terminations according to rank, provisions of this *Code* proscribing these terminations for non-virus taxa ensure that the names of viruses and other organisms cannot conflict.
- 6. The nomenclature of cultivated plants follows the provisions of this *Code*, in so far as these provisions are applicable, but the naming of distinguishable groups of plants whose origin or selection is primarily due to the intentional actions of mankind follow the supplementary provisions of the *International Code of Nomenclature for Cultivated Plants*.

### **DIVISION I. PRINCIPLES**

### Principle I

The BioCode governs the formation and choice of scientific names of known taxa but not the definition of the taxa themselves. Nothing in this Code may be construed to restrict the freedom of taxonomic thought or action. -BC, G.C. 4; ICZN, Pre. [2].

# Principle II

Scientific nomenclature of organisms builds upon the Linnaean system of binary names for species. – BC, Rule 12A; ICBN, Art. 23; ICZN, Art. 5.

In this *Code*, the term "fossil" is applied to a taxon when its name is based on a fossil type and the term "nonfossil" is applied to a taxon when its name is based on a non-fossil type.

# Principle III

The application of names of taxa is determined by means of name-bearing types, although application of this principle is not universal at supra-familial ranks. – BC, Prin. 5; ICBN, Prin. II; ICZN, Art. 61.

### Principle IV

The nomenclature of a taxon is based upon precedence of publication, although application of this principle is not mandatory at all ranks. – BC, Prin. 6; ICBN, Prin. III; ICZN, Pre. [3].

# Principle V

Each taxon in the family-group, genus-group or species-group with a particular circumscription, position, and rank has only one accepted name, except as may be specified in earlier *Codes. – BC, Prin. 8; ICBN, Prin. IV; ICZN, Pre.* [2].

#### Principle VI

Scientific names of taxa are by convention treated as if they were Latin, regardless of their derivation. – BC, Prin. 3 & Rule 6; ICBN, Prin. V; ICZN, Art. 11.

#### Principle VII

The only proper reasons for changing a name are either a change in the circumscription, position or rank of the taxon, resulting from adequate taxonomic study, or the promotion of nomenclatural stability. – BC, Prin. 9; ICBN, Pre. 9; ICZN, Art. 23b.

# Principle VIII

In the absence of a relevant rule or where the consequences of rules are doubtful, established custom is followed. – BC, Rule 4; ICBN, Pre. 10; ICZN, Art. 80.

# Principle IX

The rules of nomenclature are retroactive unless expressly limited (but see Pre. 2-3). – BC, Rule 2; ICBN, Prin. VI; ICZN, Art. 86.

# **DIVISION II. RULES**

# CHAPTER I. TAXA AND RANKS

## Article 1

1.1. Taxonomic groups of any rank will, in this *Code*, be referred to as *taxa* (singular: *taxon*). – *BC*, *G.C.* 7; *ICBN*, *Art.* 1.1; *ICZN*, *Art.* 1.

# Article 2

2.1. Every individual organism is treated as belonging to an indefinite number of taxa of consecutively subordinate rank, among which *genus* and *species* are essential. – *ICBN*, *Art.* 2.1.

- 3.1. The principal ranks of taxa in descending sequence are: kingdom, phylum, class, order, family, genus, and species. BC, Rule 5b; ICBN, Art. 3.1.
- 3.2. Taxa that do not consist of whole organisms but of particular parts of organisms, or part of their life history, or their fossil traces, may receive names under special regulations at only some of these ranks, e.g. fossil organgenera, the anamorphs of pleomorphic fungi, or ichnotaxa (see Art. 36). Names of such form taxa do not compete for precedence with names applying to the whole organisms and to all stages of their life history. *ICBN*, *Art. 3.3-4*; *ICZN*, *Art. 1d*, 10d, 23g & 42b(i).
- [Art. 3.2 and 36 provide for a special category of names that apply exclusively to parts of organisms, parts of their life histories, or their fossil traces. These provisions are referred for discussion and advice to the groups of specialists concerned.]

#### Article 4

- 4.1. Secondary ranks of taxa, when required, include in descending sequence: domain above kingdom, superfamily above family, subfamily and tribe between family and genus, subgenus, section and series between genus and species, and subspecies, variety and form below species. BC, Rule 5b; ICBN, Art. 4.1.
- 4.2. If an even greater number of ranks of taxa is desired, the terms for these are made by adding either of the prefixes super- or sub- to non-prefixed terms denoting principal or secondary ranks. *ICBN*, Art. 4.2.
- 4.3. Throughout this *Code* the phrase "subdivision of a family" refers only to taxa of a rank between family and genus; "subdivision of a genus" refers only to taxa of a rank between genus and species; "family-group" refers to the ranks from superfamily to subtribe, "genus-group" refers to the ranks of genus and subgenus, and "species-group" to the ranks of species and subspecies. *ICBN*, *Art. 4 Note 1*.
- 4.4. Further ranks may be intercalated or added, but designations of taxa in such ranks are not governed by this Code. ICBN, Art. 4.3.

# CHAPTER II. PUBLICATION

- 5.1. Publication, under this *Code*, is defined as distribution of text or images (but not sound) in several identical, durable and unalterable copies, in a way that makes it generally accessible, as a permanent public record, to the scientific community, be it through sale or exchange or gift, and subject to the restrictions and qualifications in the present Article. *BC*, *Rule 25a*; *ICBN*, *Art. 29.1*; *ICZN*, *Art. 8 & 9*.
- 5.2. Normally, publication is by distribution of printed matter. Other non-amendable and generally readable media such as microcards, microfiches, and non-erasable laser disks are also acceptable vectors of published information. *Contrary to BC, Rule 25b (3); ICZN, Art. 8a.*
- 5.3. Any matter containing a disclaimer to the effect that it is not intended for general public use is not considered as a publication. *ICZN*, *Art.* 8b.
- 5.4. Communication of text or images at a public meeting, in any way unlikely to be durable and reach a wider audience than those in attendance, is not publication. BC, Rule 25b (1); ICZN, Art. 9.

- 5.5. The placing of texts or images in collections or exhibits, e.g. on labels (including specimen labels, even if printed) or information sheets, is not publication. BC, Rule 25b (2); ICZN, Art. 9.
- 5.6. The reproduction of hand-written material in facsimile, e.g. by print, photostat or microfilm, is not publication. *ICZN*, *Art.* 9.
- 5.7. Inclusion of names in issued patents and patent applications is not publication. BC, Rule 25b (5).
- 5.8. The distribution of films or photographs of text or images is not publication. ICZN, Art. 9.
- 5.9. The dissemination of text or images on erasable electronic support, or through electronic communication networks, is not publication. *ICZN*, *Art.* 9.
- [A Committee on Electronic Publication, to report to the XVI International Botanical Congress (St Louis, Missouri, 1999), is currently examining the likely impact of recent technological developments on publication.]

- 6.1. The publication date is the date on which publication as defined in Art. 5 took place. In the absence of proof establishing some other date, the one appearing in the publication itself must be accepted. BC, Rule 26a; ICBN, Art. 31.1; ICZN, Art. 21.
- 6.2. When separates from periodicals or other works are issued in advance, the date of the separate is the publication date. *ICBN*, *Art. 31.2*; *ICZN*, *Art. 21h*.

## CHAPTER III. NAMES (GENERAL PROVISIONS)

#### SECTION 1. STATUS

## Article 7 - BC, Rule 23a & 24a

- 7.1. For the purposes of this Code, publication of a name is defined in Art. 5-6. ICBN, Art. 6.1; ICZN, Art. 7-9.
- 7.2. Established names are those that are published in accordance with Art. 8-13 (see also Art. 38). *ICBN*, Art. 6.2; *ICZN*, Art. 10-11.
- 7.3. Acceptable names are those that are in accordance with the rules, i.e., are not unacceptable under Art. 18. *ICBN*, Art. 6.3.
- 7.4. The accepted name of a taxon with a particular circumscription, position, and rank is the acceptable name which must be adopted for it under the rules (see Art. 19). ICBN, Art. 6.5; ICZN, Art. 23.
- 7.5. In this *Code*, unless otherwise indicated, the word "name" means an established name, whether it be acceptable or unacceptable (see Art. 20). *ICBN*, *Art.* 6.6; *ICZN*, *Art.* 23.
- 7.6. The name of a taxon consisting of the name of a genus combined with one epithet is termed a binomen, the name of a species combined with an infraspecific epithet is termed a trinomen; binomina or trinomina are also termed combinations. *ICBN*, *Art.* 6.7; *ICZN*, *Art.* 5.

# SECTION 2. ESTABLISHMENT

- 8.1. In order to be established on or after 1 January 2000, a name of a taxon must: (a) be published as provided for by Art. 5-6; (b) have a form that complies with the provisions of Art. 25-33; (c) be adopted by the author(s), who must be a named person (or persons); (d) not be proposed merely in anticipation of the future acceptance of the group concerned, or of a particular circumscription, position, or rank of the group; and (e) comply with the special provisions of Art. 9-12 (see also Art. 38.3). Furthermore, it must be registered as provided for in Art. 13. BC, Rule 29 & 30; ICBN, Art. 32.1.
- 8.2. In order to be established, a name of a new taxon must be accompanied by a Latin or English description or diagnosis, or by full and direct reference to a previously published Latin or English description or diagnosis that applies to the taxon when placed in a rank belonging to the same rank group as defined in Art. 9.3. BC, see Rec. 25a; ICBN, Art. 36.1.
- 8.3. In order to be established, new names must be clearly identified as such in the original publication, by statements such as "new species", "sp. nov.", "new combination", "comb. nov.", etc. -BC, Rule 33a.
- 8.4. When a publication contains a disclaimer to the effect that names or nomenclatural acts in it are not to be considered for nomenclatural purposes, names that it may contain are considered as not published. BC, see Rule 28b; ICZN, Art. 8b.
- 8.5. When two or more different names are proposed simultaneously for the same taxon by the same author(s) as alternative names, neither is considered to be adopted by its author(s) (Art. 8.1 (c)).

#### Article 9

- 9.1. A new combination or a replacement name for a previously established name may not be established unless its basionym (name-bringing or epithet-bringing synonym) or the replaced name is clearly indicated with a direct and unambiguous reference given to its author and place of original publication. ICBN, Art. 33.2; ICZN, Art. 67h.
- 9.2. In order for a reference to be direct and unambiguous it must include page or plate reference (where applicable) and date; for publications with a consecutive pagination, page reference is a reference to the page or pages on which the basionym was published or on which the protologue<sup>2</sup> is printed, but not to the pagination of the whole publication unless it is coextensive with that of the protologue. *ICBN*, *Art. 33 Note 1*.
- 9.3. The basionym or replaced name may be of a different rank than the new combination or replacement name, but only within the following rank groups: ranks above superfamily, family-group ranks, genus-group ranks, ranks between genus-group and species-group, species-group ranks, and ranks below subspecies. *ICBN*, *Art.* 41.1.

- 10.1. The name of a new taxon of the rank of genus or below may not be established unless the name-bearing type is designated (see Art. 14-17). Designation of the type must include one of the words "holotype" (holotypus) or "type" (typus) or its abbreviation. BC, Rule 27, see also Rule 18b; ICBN, Art. 37.1; ICZN, Art. 13b.
- 10.2. For the name of a new species or infraspecific taxon for which the holotype is a preserved specimen, the institution or collection in which the type is conserved must be specified. BC, Rec. 30a; ICBN, Art. 37.5.

<sup>&</sup>lt;sup>2</sup> Protologue (from the Greek *protos*, first; *logos*, discourse): everything associated with a name in the publication in which it is eligible for establishment.

11.1. In order to be established, a name of a new taxon of fossil plants and non-fossil algae of specific or lower rank must be accompanied by an illustration or figure showing the essential characters, in addition to the description or diagnosis, or by a reference to an illustration or figure previously published in accordance with Art. 5-6. – *ICBN*, Art. 38.1.

#### Article 12

12.1. Only if the corresponding genus or species name is established can the name of a subordinate taxon be established (but see Art. 34.2). – BC, Rule 32b; ICBN, Art. 43.1.

## SECTION 3. REGISTRATION

#### Article 13

- 13.1. Registration is effected (a) by submitting the published matter that includes the protologue(s) to a registering office designated by the relevant international body (see Div. III.7), or (b), where an official medium for establishment of names has been designated, by publication in that medium. Registration will be granted to all submitted names that fulfil the requirements of Art. 8-12. The exact procedure is outlined in Annex ...  $^3$  BC, Rule 27; ICBN, Art. 32.2.
- 13.2. The date of a name under Art. 13.1 (a) is that of its registration, which is the date of receipt of the relevant matter at the registering office. Under Art. 13.1 (b) it is the date of publication of the official medium. BC, Rule 24a, 24b & 27; ICBN, Art. 45.1.
- 13.3. When one or more of the other conditions for establishment have not been met prior to registration, the name must be resubmitted for registration after these conditions have been met. *ICBN*, *Art.* 45.2.

# SECTION 4. TYPIFICATION

# Article 14

- 14.1. The application of names of taxa of the rank of superfamily or below, and of those names of taxa in the higher ranks that are ultimately based on generic names, is determined by means of name-bearing types (types of names of taxa). The unit formed by the name and its type is referred to as the nominal taxon. BC, Rule 18a; ICBN, Art. 7.1; ICZN, Art. 61a.
- 14.2. A name-bearing type is that element to which the name of a taxon is permanently attached, whether it be an accepted name or not. BC, Rule 15; ICBN, Art. 7.2; ICZN, Art. 61a.
- 14.3. A new name based on a previously published acceptable name, e.g. as a new combination or as a replacement for an older name, is typified by the type of the older name (see Art. 9). BC, Rule 34a; ICBN, Art. 7.3; ICZN, Art. 67h, 72e.

# Article 15

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This Annex, and those referred to in Art. 22.13, 38.8, 38.9, 40.2, and 40.3, will be prepared at later dates, and are not, therefore, included in this *Draft BioCode*.

- 15.1. For names of superspecies, species or infraspecific taxa the name-bearing type is a specimen (but see Art. 15.3). A specimen as here defined normally consists of a single individual or parts thereof, but may sometimes consist of (parts of) more than one individual, on the condition that they are all of the same taxon, collected or isolated at the same time and place, and conserved permanently as a single curatorial unit (e.g., herbarium sheet or preparation). BC, Rule 18a; ICBN, Art. 8.1; ICZN, Art. 61a.
- 15.2. Type specimens cannot be metabolically active organisms, but may be organisms permanently preserved in a viable but metabolically inactive state, e.g. by lyophilization or cryopreservation. BC, Rule 18a; ICBN, Art. 8.2.
- 15.3. When authors of new names explicitly indicate in the protologue that it is not practicable to preserve a specimen, the type may be an illustration. BC, Rule 18a, see also Rule 18f; ICBN, Art. 8.3; ICZN, Art. 73 (a)(iv).

- 16.1. If a type specimen is lost or destroyed, or is unavailable for consultation for an indefinite period of time, a neotype may be designated. A neotype must be selected from among duplicate material of the original type, when such material exists and does not demonstrably differ taxonomically from the original type. BC, Rule 18c, 18d, 18e & 18g; ICBN, Art. 9.6; ICZN, Art. 75.
- 16.2. When a type specimen contains parts belonging to more than one taxon, a part of it may be designated as lectotype so as to fix the application of the name. ICBN, Art. 9.10; ICZN, Art. 74.
- 16.3. When a type is demonstrably ambiguous and cannot be critically identified for purposes of the precise application of the name of a taxon, and it is desirable to fix that application, an epitype may be designated that is not itself ambiguous. ICBN, Art. 9.7; ICZN, Rec. 75E.

#### Article 17

- 17.1. The type of a nominal taxon in the rank of genus or subdivision of a genus is a nominal species (see also Art. 22.9). BC, Rule 20a-g; ICBN, Art. 10.1; ICZN, Art. 63.
- 17.2. The type of a nominal taxon of the family-group, or of a nominal taxon of higher rank whose name is ultimately based on a generic name, is the nominal genus from which it is derived. BC, Rule 21a & 21b; ICBN, Art. 10.6; ICZN, Art. 63.

#### SECTION 5. HOMONYMY

### Article 18 - BC, Rule 56a.

- 18.1. A family-group, genus-group or species-group name established on or after 1 January 2000, unless conserved (Art. 22) or otherwise protected, is unacceptable if it is a later homonym (see also Art. 18.4), that is, if it, or one of its coordinate names, is spelled exactly like a name based on a different type that was previously established for a taxon of the same rank. BC, Rule 51b(4); ICBN, Art. 53.1; ICZN, Art. 52.
- 18.2. When two or more specific or infraspecific names based on different types are so similar that they are likely to be confused they are treated as homonyms. The same applies in the case of confusingly similar generic botanical names. BC, Rule 51b(4), 62a; ICBN, Art. 53.3; ICZN, Art. 58.
- 18.3. When it is doubtful whether names are sufficiently alike to be confused, a request for a decision may be submitted to the appropriate committee(s). A recommendation will then be put forward and, if ratified, will become a binding decision. BC, Rule 58; ICBN, Art. 53.4.

18.4. When two or more homonyms have the same date, the first of them that is adopted in publication (Art. 5-6) by an author who simultaneously rejects the other(s) is the only one acceptable. Likewise, if an author, in publication, substitutes other names for all but one of these homonyms, the homonym for the taxon that is not renamed takes precedence. – ICBN, Art. 53.6; ICZN, Art. 24.

#### SECTION 6. PRECEDENCE

#### Article 19

- 19.1. For purposes of precedence the date of a name is either the date attributed to it in an adopted List of Protected Names or, for unlisted names, the date on which it was validly published under the botanical or bacteriological *Code*, or became available under the zoological *Code*, or was established under the present *Code*. Limitations of precedence that under previous *Codes* affected names in certain groups or of certain categories, even if not provided for in the present *Code*, still apply to such names if they were published before 1 January 2000. *BC*, *Rule 24a* & 24b; *ICZN*, *Art. 10*.
- 19.2. In no case does a name have precedence outside the rank in which it is published. The automatic establishment of coordinate names in the same rank-group (Art. 27.1, 29.1 and 31.5) is not however affected by the present provision. BC, Rule 23a; ICBN, Art. 11.2; ICZN, Art. 23c.
- 19.3. For any taxon from superfamily to genus inclusive, the accepted name is the earliest acceptable one with the same rank, except in cases of limitation of precedence by conservation or protection (see Art. 21-22) or where Art. 19.7, 23, 24, or 36 apply. BC, Rule 23a; ICBN, Art. 11.3; ICZN, Art. 23.
- 19.4. For any subgenus or species-group taxon, the accepted name is the combination of the final epithet<sup>4</sup> of the earliest acceptable name of the taxon in the same rank, with the accepted name of the genus or species to which it is assigned, except (a) in cases of limitation of precedence under Art. 21-24, or (b) if the resulting combination cannot become established under Art. 8.1(b) or is unacceptable under Art. 18, or (c) if Art. 19.7 or 36 rule that a different combination be used. BC, Rule 23a; ICBN, Art. 11.4; ICZN, Art. 23.
- 19.5. When, for any taxon of the family-group, genus-group or species-group, a choice is possible between acceptable names of equal date, or between final epithets of acceptable names of equal date, the first such choice to be published (Art. 5-6) establishes the relative precedence of the chosen name, and of any acceptable combination with the same type and final epithet at that rank, over the other competing name(s) (but see Art. 19.6). BC, Rule 24b; ICBN, Art. 11.5; ICZN, Art. 24.
- 19.6. A choice as provided for in Art. 19.5 is effected by adopting one of the competing names, or its final epithet in the required combination, and simultaneously rejecting or relegating to synonymy the other(s), or homotypic synonyms thereof. *ICBN*, *Art.* 11 Note. 1; *ICZN*, *Art.* 24.
- 19.7. Names of organisms (animals and algae excepted) based on a non-fossil type are treated as having precedence over names of the same rank based on a fossil (or subfossil) type. *ICBN*, *Art.* 11.7.
- 19.8. The principle of precedence is not mandatory for names of taxa not belonging to the family-group, the genus-group or the species-group. BC, Rule 23a (up to class); ICBN, Art. 11.9; ICZN, Art. 1b.

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Here and elsewhere in this *Code*, the phrase "final epithet" refers to the last epithet in sequence in any particular combination, whether in the rank of a subdivision of a genus, or of a species, or of an infraspecific taxon.

20.1. Unless it has been established (Art. 7.2), a name of a taxon has no status under this Code. – BC, Prin. 7; ICBN, Art. 12.1.

- 21.1. In order to stabilize the nomenclatural status of names in current use, and to prevent their being displaced by names no longer in use, published lists of names may be submitted for adoption to the appropriate committee.
- 21.2. Once a list has been adopted, all listed names and their coordinate names are protected, subject to specified restrictions and exceptions. A protected name is treated as if conserved against earlier homonyms and unlisted competing synonyms; it is accepted as established in the place and on the date cited in the list; and its type, when listed, its spelling and, if specified, its gender are treated as if conserved.
- 21.3. Protection can, for individual lists, be restricted with respect to the options set out in Art. 21.2, and individual entries on a list can be exempted from protection. Such restrictions and exceptions are to be specified upon adoption by the appropriate committee.
- 21.4. Once a list has been adopted, entries can be added to, modified in or removed from that list only by the mechanisms of conservation or suppression of names (Art. 22-23). Specified restrictions and exceptions can be waived or modified only upon recommendation of the appropriate committee.
- 21.5. An earlier homonym of a protected name does not lose its status of an established name, but the precedence of the two homonyms is inverted by protection. *ICBN*, *Art.* 15.2.
- 21.6. When, for a taxon from superfamily to genus inclusive, two or more protected names compete, Art. 19.3 governs the choice of the correct name (see also Art. 21.9). *ICBN*, Art. 15.3.
- 21.7. When, for a taxon below the rank of genus, two or more protected names and/or two or more names with the same final epithet and type as a protected name compete, Art. 19.4 governs the choice of the correct name. *ICBN*, Art. 15.4.
- 21.8. The date of protection does not affect the date (Art. 19) of a protected name, which is determined only on the basis of its establishment or equivalent actions under previous Codes. BC, Rule 24b; ICBN, Art. 15 Note 1.
- 21.9. A name which is neither protected nor has the same type and final epithet as a protected name in the same rank may not be applied to a taxon which includes the type of a protected name in that rank unless the final epithet of the latter cannot be used in the required combination (see Art. 19.4(b)). -ICBN, Art. 15.5.
- 21.10. Conservation (Art. 20) and suppression (Art. 23.1) override protection. ICBN, Art. 15.6.

- 22.1. Conservation of names, enacted by decisions of appropriately mandated committees, is a means of suspending the application of the rules in the interest of stability of nomenclature of individual names of taxa of the family-group, genus-group and species-group, or, where adopted lists of protected names exist, of amending such lists. *ICBN*, *Art.* 14.1; *ICZN*, *Art.* 79c.
- 22.2. Once conserved, a name is placed on an appropriate list. It is then treated as established in the place and on the date cited in that list. -ICZN, Art. 78f.

- 22.3. A conserved name is conserved against all other names in the same rank-group based on the same type (homotypic synonyms, which are to be rejected), whether explicitly cited as rejected or not, and against those names based on different types (heterotypic synonyms) that are explicitly cited. A conserved binomen or trinomen is conserved against all names listed as rejected, and against all combinations based on the rejected names. BC, Rule 23a, 56b; ICBN, Art. 14.4.
- 22.4. When a conserved name competes with one or more names based on different types and against which it is not explicitly conserved, the earliest of the competing names is adopted in accordance with Art. 19, unless Art. 21 applies. BC, Rule 56b; ICBN, Art. 14.5; ICZN, Art. 78f.
- 22.5. When a name of a taxon has been conserved against an earlier name based on a different type, the latter is to be restored, subject to Art. 19, if it is considered the name of a taxon at the same rank distinct from that of the conserved name, except when the earlier rejected name is a homonym of the conserved name or when Art. 21 applies. *ICBN*, *Art.* 14.6.
- 22.6. A rejected name, or a combination based on a rejected name, may not be restored for a taxon which includes the type of the corresponding conserved name. *ICBN*, *Art.* 14.7.
- 22.7. The stated type of a conserved name may not be changed except by the procedure outlined in Art. 22.14. BC, Rule 36, 37a; ICBN, Art. 14.8; ICZN, Art. 79c.
- 22.8. A name may be conserved with a different type from that designated by the author or determined by application of the *Code* (see also Art. 22.9). Such a name may be conserved either from its place of establishment (even though the type may not then have been included in the named taxon) or from a later publication by an author who did include the type as conserved. In the latter case the original name and the name as conserved are treated as if they were homonyms (Art. 18), whether or not the name as conserved was accompanied by a description or diagnosis of the taxon named. *ICBN*, *Art. 14.9*.
- 22.9. In exceptional cases, the type of a conserved botanical genus-group name may be a specimen or illustration. *ICBN*, *Art.* 10.4.
- 22.10. A conserved name, with its corresponding autonyms and coordinate names, if any, is conserved against all earlier homonyms. An earlier homonym of a conserved name does not lose its status of an established name, but the precedence of the two homonyms is inverted by conservation. BC, Rule 56b; ICBN, Art. 14.10.
- 22.11. A name may be conserved in order to preserve a particular orthography or gender. A name so conserved is to be attributed without change of date to the author who established it, not to an author who later introduced the conserved spelling or gender. *ICBN*, *Art.* 14.11; *ICZN*, *Art.* 79c.
- 22.12. The date of conservation does not affect the date (Art. 18) of a conserved name, which is determined only on the basis of the date of its establishment (Art. 8-13). *ICBN*, Art. 14 Note 3.
- 22.13. The lists of conserved names will remain permanently open for additions and changes. Regulations and procedures for the conservation of names in the major groups of organisms are outlined in Annex ...
- 22.14. Any proposal of an additional name, or for the amendment of an existing entry, must be accompanied by a detailed statement of the cases both for and against its conservation. Such proposals must be submitted to the appropriate committee. BC, App. 8; ICBN, Art. 14.12; ICZN, Art. 79c.
- 22.15. When a proposal for the conservation of a name has been referred to the appropriate committee for study, retention of that name is authorized pending the committee's recommendation and its ratification. *ICBN*, *Art. 14.14; ICZN, Art. 80*.

- 23.1. Any name that would cause a disadvantageous nomenclatural change may be proposed for suppression. A name thus suppressed, or its basionym if it has one, is placed on a list. Along with the listed names, all combinations based on them, and all suprageneric names that may be formed from them, are similarly suppressed, and none is to be used. *ICBN*, Art. 56.1; *ICZN*, Art. 78h.
- 23.2. The list of suppressed names will remain permanently open for additions and changes. Any proposal for suppression of a name must be accompanied by a detailed statement of the cases both for and against its suppression, including considerations of typification. Such proposals must be submitted to the appropriate committee. That committee's recommendation, once ratified, must be followed. BC, Rule 56a; ICBN, Art. 56.2; ICZN, Art. 78i.
- 23.3. When a proposal for the suppression of a name has been referred to the appropriate committee for study, suppression of that name is authorized pending the committee's recommendation and its ratification. *ICBN*, *Art. 14.14; ICZN*, *Art. 80*.

#### Article 24

24.1. A name that has been widely and persistently used for a taxon or taxa not including its type is not to be used in a sense that conflicts with current usage unless and until a proposal to deal with it under Art. 22.1 or 23.1 has been submitted and rejected. – BC, Rule 37a; ICBN, Art. 57.1; ICZN, Art. 23b.

#### CHAPTER IV. NAMES (BY RANK)

## SECTION 1. TAXA ABOVE THE RANK OF SUPERFAMILY

## Article 25

- 25.1. Names of taxa above the rank of superfamily are treated as nouns in the plural and are written with a capital initial letter. They may be either (a) typified names (see Art. 14.1) that are formed by adding a termination denoting their rank to the genitive singular stem of a generic name or exceptionally to the whole name, or (b) typeless names ("descriptive names") that are formed differently, apply to taxa with a recognized circumscription, and may be used unchanged at different ranks. -ICBN, Art. 16.1.
- 25.2. For typified names, the name of a subphylum which includes the type of the adopted name of a phylum, the name of a subclass which includes the type of the adopted name of a class, or the name of a suborder which includes the type of the adopted name of an order, are to be based on the same type.
- 25.3. The typified name of a phylum or subphylum is formed from the same generic name as an acceptable name of an included class. The phylum name termination is -mycota for fungi, -phyta for other botanical taxa. The subphylum name termination is -mycotina for fungi, -phytina for other botanical taxa. ICBN, Rec. 16A.1.
- 25.4. The typified name of a class or subclass is formed from the same generic name as an acceptable name of an included order. The class name termination is *-mycetes* for fungi, *-phyceae* for algae, *-opsida* for other botanical taxa. The subclass name termination is *-mycetidae* for fungi, *-phycidae* for algae, *-idae* for other botanical taxa. *ICBN*, *Rec.* 16A.2.
- 25.5. The typified name of an order or suborder is formed from the same generic name as an acceptable name of an included family. The order name termination is -ales for all botanical and bacteriological taxa. The suborder name termination is -ineae for all botanical and bacteriological taxa. BC, Rule 9; ICBN, Art. 17.1.

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- 25.6. The name of a taxon above the rank of family may not have the termination -virinae, -virales, or viridae, because these terminations are reserved for the names of viral taxa (see Pre. 5).
- 25.7. When a name is published with a Latin termination not agreeing with the provisions of this Article, the termination is changed to accord with it, but the name retains its authorship and date. *ICBN*, *Art.* 17.3; *Rec.* 16A.4.

#### SECTION 2. FAMILY-GROUP TAXA

#### Article 26

26.1. Family-group names are treated as nouns in the plural and are written with a capital initial letter. They are formed by adding to the genitive singular stem of a generic name, or to the whole name if necessary to avoid homonymy, a termination denoting their rank. – BC, Rule 9; ICBN, Art. 18.1; ICZN, Art. 11f.

The superfamily name termination is -oidea for zoological taxa. - ICZN, Rec. 29A.

The family name termination is -aceae for all botanical and bacteriological taxa, -idae for zoological taxa. – ICZN, Art. 29a.

The subfamily name termination is *-oideae* for all botanical and bacteriological taxa, *-inae* for zoological taxa. – *ICZN*, *Art.* 29a.

The tribe name termination is -eae for all botanical and bacteriological taxa, -ini for zoological taxa. - ICZN, Rec. 29A.

The subtribe name termination is -inae for all botanical and bacteriological taxa, -ina for zoological taxa.

- 26.2. The name of a family may not have the termination *-viridae*, and the name of a subfamily or subtribe may not have the termination *-virinae*, because these terminations are reserved for the names of viral taxa (see Pre. 5).
- 26.3. When a name is published with a Latin termination not agreeing with the provisions of this Article, the termination is changed to accord with it, but the name retains its authorship and date. Normally any required change will be made during the registration process. *ICBN*, *Art.* 18.4; *ICZN*, *Art.* 32c.

# Article 27

27.1. The establishment of any family-group name automatically establishes coordinate names, formed from the same generic name and having the same authorship and date, at all other ranks of the family-group. – *ICBN*, *Art. 19.4; ICZN*, *Art. 36*.

## SECTION 3. GENERA AND SUBDIVISIONS OF GENERA

- 28.1. The name of a genus is a noun in the singular, or a single word treated as such, and is written with a capital initial letter. It may not have the termination -virus because this termination is reserved for the names of viral genera (see Pre. 5). BC, Rule 6 & 10a; ICBN, Art. 20.1; ICZN, Art. 4a, 11g.
- 28.2. The name of a subgenus is a combination of a generic name and a subgeneric epithet of the same form as a generic name, the latter being placed between parentheses, or the two being connected by the term "subgenus" (subg.). For practical purposes the generic name may be omitted in citation. BC, Rule 10a but see Rule 39a; ICBN, Art. 21.1; ICZN, Art. 4b, 6a.

28.3. Subgeneric names with plural adjectival epithets that were validly published prior to 1 January 2000 under the *International code of botanical nomenclature* are not after that date considered as established names.

#### Article 29

- 29.1. The establishment of any genus-group name automatically establishes a coordinate name at the other rank of the genus-group. The coordinate names have the same type, authorship and date; the generic name is identical with the subgeneric epithet. ICBN, Art. 22.1; ICZN, Art. 43.
- 29.2. The name of any subdivision of a genus that includes the type of the accepted name of the genus to which it is assigned is to repeat the generic name unaltered as its epithet. Names published in explicit infringement of this rule cannot be established. BC, see Rule 11; ICBN, Art. 21.2; ICZN, Art. 44.
- 29.3. The epithet in the name of a subdivision of a genus may not repeat unchanged the accepted name of the genus to which the taxon is assigned unless the two names have the same type. ICZN, Art. 44.

#### Article 30

30.1. The name of a section, subsection, series or subseries is a combination of a generic name and an epithet, the two being connected by the term denoting the rank. The epithet is either of the same form as a generic name, or a plural adjective which is written with a capital initial letter and agrees in gender with the generic name. For practical purposes the generic name may be omitted in citation.

#### SECTION 4. SPECIES AND INFRASPECIFIC TAXA

#### Article 31

- 31.1. A name of a species consists of the name of the genus followed by a single specific epithet. The epithet may have the form of an adjective, a noun in the genitive, or a word in apposition; it is written with a lower-case initial letter. BC, Rule 12a; ICBN, Art. 23.1; ICZN, Art. 5b.
- 31.2. In a name of a botanical taxon the specific epithet may not exactly repeat the generic name. -ICBN, A rt. 23.4.
- 31.3. A name of a subspecies consists of the name of the species followed by a single subspecific epithet having the same form as a specific epithet, the two being optionally connected by the term "subspecies" (subsp.). -BC, Rule 31a; ICZN, Art. 5b; ICBN, Art. 24.1.
- 31.4. In a species-group name, the final epithet, when adjectival in form and not used as a noun, agrees grammatically with the generic name. Errors in inflection are to be corrected, but the name retains its authorship and date. BC, Rule 12a, 12c, 13b; ICBN, Art. 23.5; ICZN, Art. 32d.
- 31.5. The establishment of any species-group name automatically establishes a coordinate name at the other rank of the species-group. The coordinate names have the same type, authorship and date; their final epithets are identical. *ICZN*, *Art.* 46.

#### Article 32

32.1. The name of any infraspecific taxon that includes the type of the accepted name of the species to which it is assigned is to repeat the specific epithet unaltered as its final epithet. Names published in explicit infringement of this rule cannot be established. – *ICBN*, Art. 26.1; ICZN, Art. 47.

32.2. The final epithet in the name of an infraspecific taxon may not repeat unchanged the epithet of the accepted name of the species to which the taxon is assigned unless the two names have the same type. – *ICBN*, *Art.* 27.1; *ICZN*, *Art.* 47.

#### Article 33

- 33.1. The name of an infra-subspecific taxon is a combination of the name of a species and an infraspecific epithet connected by the term denoting the rank. *ICBN*, *Art.* 24.1.
- 33.2. Infra-subspecific epithets have the same form as subspecific epithets. Art. 31.4 applies by analogy. ICBN, Art. 24.2.

## CHAPTER V. PROVISIONS FOR SPECIAL GROUPS

#### SECTION 1. PLANT HYBRIDS AND CULTIVATED PLANTS

# Article 34 - ICBN, App. I

- 34.1. Plant hybrids may be designated as provided for in Appendix I, 'Names of hybrids', of the *International code* of botanical nomenclature. This designation may be: (a) a hybrid formula, in which the names of the parental taxa are connected by the multiplication sign  $(\times)$ ; (b) for intergeneric hybrids, a single word (condensed formula), prefixed by the multiplication sign  $(\times)$ , either combining parts of the generic names of the parental taxa (or the whole of one of them), with or without a connecting vowel, or (for tri- or multigeneric hybrids) consisting of the name of a person is followed by the suffix -ara; (c) for interspecific hybrids, a binomen conforming in all respects with the provisions of this Code, but having its epithet prefixed by the multiplication sign  $(\times)$ ; or (d) for hybrids at infraspecific ranks, a trinomen conforming in all respects with the provisions of this Code, but having the term designating its rank preceded by the prefix notho- (or n-).
- 34.2. Condensed formulae for intergeneric hybrids are determined by a statement of parentage and are not, therefore, established names as defined by and governed by this *Code*, although contrary to Art. 12 they can be part of established names of subordinate taxa. Even as such they do not compete with generic names for purposes of homonymy, because the multiplication sign (×) is considered to be part of the condensed formula.
- 34.3. Designations of hybrid taxa in the rank of a subdivision of a genus that have a condensed formula as their epithet and are determined by a statement of parentage under the *International code of botanical nomenclature* (Art. H.7 and H.9) are not established names as defined in and governed by this *Code*.
- 34.4. Names given to hybrid taxa of specific or infraspecific rank are established and treated nomenclaturally like names of non-hybrid taxa of the same rank. If their type is considered to belong to a non-hybrid taxon, they retain their original authorship and date but lose the prefix ( $\times$  or *notho-*) indicating hybrid status. The reverse is true when the type of a name published for a non-hybrid taxon is assigned to a hybrid taxon. *ICBN*, *Art. 3.2, 50*.

#### Article 35

35.1. Distinguishable groups of cultivated plants, whose origin or selection is primarily due to the intentional actions of mankind (e.g. cultivars and cultivar-groups), are not covered by this *Code*, but are denominated under the provisions of the *International code of nomenclature for cultivated plants*.

SECTION 2. PARTS OF ORGANISMS, PORTIONS OF LIFE HISTORIES, AND TRACE FOSSILS

# Article 36 – See comment after Art. 3.2

- 36.1. Except as specified below, names based on any part of an organism or portion of its life history are treated as applicable to the whole organism and compete for precedence as provided for in Art. 19-24. ICZN, Art. 23f.
- 36.2. Names referring to specific organs of fossil botanical taxa (organ-taxa), or to mitotic asexual morphs (anamorphs) of ascomycetous and basidiomycetous fungi (excluding those forming lichens) with a pleomorphic life history, are names of form-taxa. These names are applicable only to the organ or morph represented by their type, not to the whole fossil, or to the fungus in all its morphs (holomorph), which is considered to be represented by its meiotic sexual morph (the teleomorph, characterized by the production of asci/ascospores, basidia/basidiospores, teliospores, or other basidium-bearing organs). *ICBN*, *Art.* 59.1.
- 36.3. The provisions of this article shall not be construed as preventing the publication and use of binomina for form-taxa when it is thought necessary or desirable to refer to fungal anamorphs alone, or to specific organs of botanical fossils, even though the holomorph or whole fossil organism may be known and have been named. For the name of a fossil botanical genus, the author's intent (as apparent from the original description, the material he used, and often from the name itself) is essential in establishing whether it applies to an organ-genus only. Names of fossil botanical taxa in ranks lower than genus are considered to apply to an organ-taxon if they are subordinate to the name of an organ-genus. When their epithet is later transferred to a genus of whole-organism fossils, the new combination is deemed to be the name of a whole-organism taxon and as such takes the date of the transfer, without change of type. *ICBN*, *Art.* 59.5.
- 36.4. For a name of a taxon of pleomorphic fungi it is the nature of the type that determines whether the name applies to a form-taxon (anamorph) or to the whole taxon (holomorph), irrespective of the nature of the higher ranking taxon to which the named taxon was originally assigned. *ICBN*, *Art.* 59.3.
- 36.5. Unless the type of a name of a pleomorphic fungus represents the teleomorphic state, and unless the original description or diagnosis refers to this morph, the name is deemed to refer to the anamorph alone. ICBN, Art. 59.2.
- 36.6. Names referring to the fossilized work of organisms (ichnotaxa) are applicable only to that work, not to the organism responsible for the work. ICZN, Art. 23g (iii).

# CHAPTER VI. ORTHOGRAPHY AND GENDER OF NAMES

- 37.1. The original spelling of a name or epithet is to be retained, except for the correction of typographical or orthographical errors, the standardization of terminations required by Art. 39, and the mandatory corrections imposed hereunder. BC, Rule 61; ICBN, Art. 60.1; ICZN, Art. 32b.
- 37.2. For names of taxa published on or after 1 January 2000, the words "original spelling" in this Article mean the spelling employed when the name was submitted for registration. As a rule, the required corrections and standardizations will be made during the registration process. *ICBN*, Art. 60.2.
- 37.3. [version 1] Names consist exclusively of letters of the Latin alphabet, which is taken to include j, k, w and y, rare or absent in classical Latin (see also Art. 34.2). When other letters and ligatures foreign to classical Latin or diacritical signs appear in a name, they are transcribed or deleted. The diaeresis, indicating that a vowel is to be pronounced separately from the preceding vowel, is not part of the orthography of a name or epithet. BC, Rule 64; ICBN, Art. 60.4; 60.6; ICZN, Art. 27, 32 [other details explicitly provided for in version 2 to be dealt with by way of Recommendations].

- 37.3. [version 2] Names consist exclusively of letters of the Latin alphabet, including j, k, w and y, foreign to, or rare in, classical Latin (see also Art. 34.2). Other letters and ligatures foreign to classical Latin, such as the German  $\beta$  (double s), are transcribed. Diacritical signs are transcribed in conformity with the tradition prevailing in the group concerned. The ligatures  $-\alpha$  and  $-\alpha$ -, indicating that the letters are pronounced together, are to be replaced by the separate letters  $-\alpha$  and  $-\alpha$ -. Letters of the Greek alphabet are transformed into full words. The diaeresis, indicating that a vowel is to be pronounced separately from the preceding vowel, is not part of the orthography of a name or epithet. -BC, Rule 64; ICBN, Art. 60.4; 60.6; ICZN, Art. 27, 32.
- 37.4. When a name has been published in a work where the letters u, v or i, j are used interchangeably or in any other way incompatible with modern practices (one of those letters is not used or only in capitals), those letters are transcribed in conformity with modern usage. ICBN, Art. 60.5.
- 37.5. A hyphen in a compound epithet is deleted, except if it links a single letter to a whole word, if an epithet is formed of words that usually stand independently, or if the letters before and after the hyphen are the same, when a hyphen is permitted (see Art. 31.1). BC, Rule 12a; ICBN, Art. 60.9; ICZN, Art. 31d.
- 37.6. An apostrophe in an epithet is deleted. ICBN, Art. 60.10.
- 37.7. The letters -ae-, when used for linking the elements of a compound adjectival epithet, are corrected to -i-unless they serve to establish an etymological distinction. BC, see App. 9b; ICBN, Art. 60.8.
- 37.8. The use of terminations in epithets commemorating persons is standardized as specified in Annex .... BC, App. 9A; ICBN, Art. 60.11.
- 37.9. Epithet spellings that are contrary to the standard spellings listed in Annex ... are corrected.
- 37.10. Epithets of fungus names derived from the generic name of the host plant but spelled differently are corrected to reflect the accepted spelling of the host's name. ICBN, Rec. 60H.1.

- 38.1. For the purpose of this *Code*, orthographical variants are the various spelling, compounding, and inflectional forms of a name or its epithet (including typographical errors), only one type being involved. *BC*, *Rule 57b*; *ICBN*, *Art. 61.2*.
- 38.2. Confusingly similar names based on the same type are also treated as orthographical variants. BC, see Rule 57c, 62a.
- 38.3. Only one orthographical variant of any one name is treated as established, which, except as provided in Art. 37 (typographical or orthographical errors and standardizations), and Art. 22.11 (conserved spellings), is the form which appears in the original publication. BC, Rule 57c & 61; ICBN, Art. 61.5; ICZN, Art. 32b.
- 38.4. The orthographical variants of a name are to be corrected to the established form of that name. Whenever such a variant appears in print, it is to be treated as if it were printed in its corrected form. BC, Rule 61; ICBN, Art. 61.4; ICZN, Art. 32c.
- 38.5. If orthographical variants of a name appear in the original publication, the one that conforms to the rules and best suits current usage is retained; other things being equal, the first author who, in publication, explicitly adopts one of the variants, rejecting the other(s), is followed. BC, Rule 58; ICBN, Art. 61.3; ICZN, Art. 24.

- 39.1. A generic name is treated as a noun with either masculine or feminine or neuter gender. Gender is established on the basis of classical Latin and Greek grammar as modified by subsequent biological usage. In case of doubt, the gender assigned by the author of the name or, failing this, by the first subsequent author to assign a gender to the name, is accepted. BC, Rule 65; ICBN, Art. 62.1.
- 39.2. Compound generic names take the gender of the last word in the nominative case in the compound. The most usual words used in compounding generic names, together with their gender, are listed in Annex ... BC,  $Rule\ 65$ .
- 39.3. The gender of generic names often depends on their termination. The most usual terminations used in forming generic names, together with their gender, are listed in Annex ... BC, App. 9; ICBN, Art. 62.2.
- 39.4. When a new generic name is submitted for registration without indication of gender, or with an indication of gender that is contrary to the *Code*, the gender is assigned or corrected during registration. *BC*, see Rule 65 (3).

#### CHAPTER VI. AUTHOR CITATION

Article 40 – BC, Rule 33a-d; ICZN, Art. 51.

- 40.1. In publications dealing with the taxonomy and nomenclature of organisms, it may be necessary, for accurate and complete indication of the name of a taxon, to cite the name of the author(s) who established the name concerned and the date of its establishment. When this is done the following rules apply. BC, Rule 33b Note 1; ICBN, Art. 46.1; ICZN, Art. 50.
- 40.2. A name of a new taxon is to be attributed to the author or authors to whom both the name and the original description or diagnosis were ascribed, even though authorship of the publication may be different. A new combination or replacement name is to be attributed to the author or authors to whom it was ascribed in the original publication, when this contribution is explicitly acknowledged there. Art. 40.5 notwithstanding, authorship of a new name or combination must always be accepted as ascribed, even when it differs from authorship of the publication, when at least one author is common to both. *ICBN*, *Art.* 46.2.
- 40.3. When authorship of a name differs from authorship of the publication in which it appears, both are sometimes cited, connected by the word "in". In such a case, "in" and what follows are part of a bibliographic citation and are better omitted unless the place of publication is being referred to, at least by its date. -BC, Adv. Note B(2); ICBN, Art. 46 Note 1.
- 40.4. For the purposes of this Article, ascription is the direct association of the name of a person or persons with a new name or description or diagnosis of a taxon. Mention of an author's name in a list of synonyms is not ascription, nor is reference to a basionym or a replaced synonym, including bibliographic errors, nor is reference to a homonym. *ICBN*, *Art.* 46.3.
- 40.5. A name of a new taxon is to be attributed to the author or authors of the publication in which it appears when only the name but not the original description or diagnosis was ascribed to a different author or different authors. A new combination or a replacement name is to be attributed to the author or authors of the publication in which it appears, even when it was ascribed to a different author or to different authors, when in the publication in which it appears their contribution is not explicitly acknowledged. However, in both cases authorship as ascribed, followed by "ex", may be inserted before the name(s) of the publishing author(s). *ICBN*, *Art.* 46.4.
- 40.6. In determining the correct author citation, only internal evidence in the publication in which the name appears is to be accepted, including ascription of the name, statements in the introduction, title, or acknowledgements, and typographical distinctions in the text. In this context, all publications appearing under the same title and by the same

author, such as different parts of a flora issued at different times (but not different editions of the same work), is to be considered as a whole. – *ICBN*, Art. 46.6.

40.7. Authors publishing new names and wishing to establish that other persons' names followed by "ex" may precede theirs in authorship citation may adopt the "ex" citation in the protologue. – BC, Rule 33c; ICBN, Art. 46 Note 2.

#### Article 41

41.1. When a genus or a taxon of lower rank is altered in rank, or is transferred to another genus or species, but retains its name or final epithet, the author of the earlier, name- or epithet-bringing acceptable name (the author of the basionym) is cited in parentheses, optionally followed by the name of the author who effected the alteration (the author of the new name). – BC, Rule 33b; ICBN, Art. 49.1; ICZN, Art. 51c.

#### **DIVISION III. AUTHORITY**

- 1. The *BioCode* is placed under the joint authority of the International Union of Biological Sciences (IUBS) and of the International Union of Microbiological Societies (IUMS), to be exercised through an inter-union International Committee on Bionomenclature (ICB).
- 2. The ICB consists of a chairperson appointed by the Executive Committee of IUBS and the Executive Board of IUMS, and eight members, similarly appointed in consultation with the five international bodies concerned, as follows: two representing The General Committee on Botanical Nomenclature (GCBN), two representing the International Commission for Zoological Nomenclature (ICZN), two representing the International Committee on Systematic Bacteriology (ICSB), one representing the International Commission for the Nomenclature of Cultivated Plants (ICNCP), and one representing the International Committee on the Taxonomy of Viruses (ICTV).
- 3. The *BioCode* will take effect from a date established by the ICB, as soon as practicable, but not before the necessary provisions on authority transfer have been approved by the bodies responsible for the present (special) *Codes:* an International Botanical Congress for botany (including mycology), the IUBS General Assembly for zoology, and an International Congress of Bacteriology for bacteriology.
- 4. The ICB has power to resolve present and future ambiguity concerning the provisions of the *BioCode*, in particular those rules that affect only certain categories of organisms. It shall, in particular and for nomenclatural purposes only assign to the jurisdiction of one of the three traditional *Codes* those organisms that have been or still are treated under different special *Codes* by different workers. In case of controversy, it will take its decision after due consultation among the specialists in the groups concerned.
- 5. The first and future editions of the *BioCode* are published under the auspices of IUBS and IUMS in association with the copyright holders for the special *Codes*.
- 6. The ICB has powers to edit future editions of the *BioCode*, and to amend its provisions where necessary. Any proposed change of substance must, however, be subject to public discussion before being approved, as follows:
  - 6.1. Any proposal for a change must be published beforehand in the appropriate official organs, *Taxon* (for the GCBN), *Bulletin of zoological nomenclature* (for the ICZN), *International journal of systematic bacteriology* (for the ICSB), and also submitted for publication in other appropriate media such as *Biology international* (IUBS), *Hortax news* (ICNCP), and *Virology division news* (ICTV).
  - 6.2. After one year, and taking into account any comments received, the GCBN, ICSB, ICTV and ICZN will each inform the ICB of their opinions and recommendations concerning the proposal.

- 6.3. The ICB will act on the proposal in the light of these opinions, a 75 % majority of voting members being required for the approval of a change.
- 6.4. Any adopted change that is not of a retroactive nature will take effect from a date established by the ICB, but not prior to the publication of an edition of the *BioCode* that embodies the change.
- 7. The ICB takes responsibility for the coordination of a world-wide network of registration offices. It also supervises and coordinates the work of the registration centres that record, maintain and disseminate the registration data.
- 8. IUBS and IUMS will be responsible for convening an International Consultative Group on Bionomenclature, comprising representatives of pertinent inter-governmental bodies and agencies, which will be charged with the development of mechanisms to maintain the registration systems developed in consultation with the ICB.
- 9. Proposals for the conservation or suppression of names, requests for binding decisions on confusability of names, and applications for the adoption of lists of names in current use, may be submitted to the ICB to be forwarded to the responsible bodies (presently GCBN, ICZN, or ICSB, as the case may be). They may also be submitted directly to those bodies. They will then be acted upon in the same way as under the special *Codes*; this action is to be ratified by the ICB. *ICBN*, *Art.* 14.12-14.14, 53.4, 56; *Div. III.2*; *ICZN*, *Art.* 79.