

Updates on Nomenclature of Viruses, Plants, and Animals

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Several international organizations have recently updated their codes of nomenclature and taxonomy (all of which cover only scientific names, not vernacular names). Consequently, the conventions recorded in the sixth edition of *Scientific Style and Format*¹ need to be updated.

Virus Nomenclature

The International Committee on Taxonomy of Viruses published its seventh report² in October 2000. The report covers viruses isolated from humans, animals, plants, fungi, and bacteria. This work is the official reference for virus taxonomy and nomenclature and covers more than 4000 viruses, organized by family.

The principal style changes are that the virus family, subfamily, and genus names should be capitalized and printed in italics. When such a name is used formally, the term for the taxon should precede the term for the taxonomic unit, for example, “the family *Bunyaviridae*” and “the genus *Tospovirus*”. When used formally, a virus species name should also be printed in italics, with the first word of any subsequent proper noun capitalized, for example, *Avian leukosis virus*, *Lucerne Australian latent virus*, *Queensland Kashmir bee virus*. Generally, the designation of the taxonomic unit “species” need not precede the species name, for example, *Rous sarcoma virus* need not be written as “the species *Rous sarcoma virus*”. The first use of a virus species name in a paper should usually be treated formally and therefore should appear in italics with the first word capitalized. Subsequent reference to the same virus should be an accepted acronym, which is not italicized, for example, AMV for *Alfalfa mosaic virus*. Virus names presented in tables should be written formally. The name of a tentative

species whose taxonomic status is uncertain should not be written in italics, but its first word (and any proper nouns) should be capitalized.

Botanic Nomenclature

The International Code of Botanical Nomenclature was revised and adopted in July-August 1999 and was published in 2000.³ This new code is conservative and includes few changes from the previous version. The largest kind of change concerns typification. The definition of a

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type specimen has been revised; multiple plants or plant fragments that belong to one and the same gathering and taxon, when mounted together on a herbarium sheet or an equivalent preparation, form one specimen. In the future, designation of only part of such specimens as a lectotype will be considered inappropriate.

The second largest change is the deletion of all reference to registration of new botanic names. This constitutes a reversal from the previous edition, which was the first to include such information.

To avoid confusion with virus names, the terminations “-viridae”, “-virales”, “-virinae”, and “-virus” can no longer be used for botanic subclasses, orders, subtribes, and genera, respectively.

Botanic fossils are to be considered as belonging to morphotaxa, which can comprise parts, life-history stages, or preservational states.

For the name of a new taxon published on or after 1 January 2001, indication of the type must include the word “typus” or “holotypus” or the abbreviation (“T”

or “HT”) or the equivalent in a modern language.

Zoologic Nomenclature

The International Commission on Zoological Nomenclature published its fourth edition in 1999,⁴ and the provisions in this code were to be effected by 1 January 2000. This edition differs little from previous editions. One change is that editors are encouraged to recommend to authors that each new name be brought to the attention of the *Zoological Record*, published by BIOSIS, and be explicitly identified as new in its original publication. This status is indicated by such terms as “sp. nov.”, “gen. nov.”, “fam. nov.”, and “nom. nov.” or by a directly equivalent term in the language in which the paper is written.

Regarding priority in nomenclature, various materials are to be treated as unpublished: electronically distributed texts or illustrations or printouts of such materials; abstracts of papers, posters, lectures, and other forms of presentation; and offprints (separates) distributed after 1999 in advance of publication.

In contrast with the situation in botanic³ and microbiologic⁵ nomenclature, the first two terms of a zoologic trinomen (called a trinomial in the bacteriologic and botanic codes) can each be abbreviated to a single letter; for example, the mosquito name *Aedes aegypti aegypti* can be abbreviated as *A. a. aegypti*. Where confusion is likely, the genus name may be abbreviated to two or more letters rather than to the first letter only; for example, if confusion between *Aedes* and *Anopheles* is likely, *Aedes aegypti* might be abbreviated as *Ae. aegypti*.

After 1999, descriptions of valid lectotypes must use the term “lectotype” or an exact translation of that term (for example, “lectotypus”, but not “the type”) and must be accompanied by a statement

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to the effect that the lectotype has been designated to clarify the application of the name to a taxon.

Most of the other changes are in technical points of nomenclature, not style.

References

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