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**Post-print publication amendments to
the INTERNATIONAL CODE OF
ZOOLOGICAL NOMENCLATURE**

Fourth edition

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Article 8. What constitutes published work

[amended]

~~8.1.3. it must have been produced in an edition containing simultaneously obtainable copies by a method that assures numerous identical and durable copies.~~

[amendment]

8.1.3. it must have been produced in an edition containing simultaneously obtainable copies by a method that assures

8.1.3.1. numerous identical and durable copies (see [Article 8.4](#)), or

8.1.3.2. widely accessible electronic copies with fixed content and layout.

Example. PDF/A (Portable Document Format Archive), described by ISO Standard 19005-1:2005, is a file format that allows content and layout to be preserved unchanged.

[amended]

~~8.4. Works produced before 1986~~

~~To be published, a work produced before 1986 must have been produced on paper, by a printing method then conventional (such as letterpress, offset printing) or by hectographing or mimeographing.~~

[amendment]

8.4. Works issued as physical copies

Printing on paper and optical disc are the only recognized formats for works issued as physical copies. In addition to fulfilling the requirements of [Article 8.1](#) while not being excluded by [Article 9](#), works issued as physical copies are subject to the following criteria:

8.4.1. Works printed on paper

Before 1986 and after 2012, the only acceptable means of producing physical copies is by printing on paper using ink or toner.

8.4.2. Works on optical disc

To be considered published, a work on optical disc must be issued, in read-only memory form, after 1985 and before 2013, and

8.4.2.1. if issued before 2000, must contain a statement that any new name or nomenclatural act within it is intended for public and permanent scientific record and that the work is produced in an edition containing simultaneously obtainable copies, or

8.4.2.2. if issued after 1999, must contain a statement naming at least five major publicly accessible libraries in which copies of the optical disc were to have been deposited.

[amended]

~~8.5. Works produced after 1985 and before 2000~~

~~A work produced between 1985 and 2000 by a method other than conventional printing may be~~

~~accepted as published within the meaning of the Code if~~

~~8.5.1. it meets the other requirements of this Article and is not excluded by the provisions of [Article 9](#), and~~

~~8.5.2. contains a statement by the author that any new name or nomenclatural act within it is intended for public and permanent scientific record, and~~

~~8.5.3. contains a statement in words in the work itself that it is produced in an edition containing simultaneously obtainable copies.~~

[amendment]

8.5. Works issued and distributed electronically

To be considered published, a work issued and distributed electronically must

8.5.1. have been issued after 2011,

8.5.2. state the date of publication in the work itself, and

8.5.3. be registered in the *Official Register of Zoological Nomenclature* (ZooBank) (see [Article 78.2.4](#)) and contain evidence in the work itself that such registration has occurred.

Examples. Evidence of registration is given by stating information that would be known only if the registration has occurred, such as the exact date of registration or the registration number assigned to the work or to a new name or nomenclatural act introduced in the work. A work issued as a PDF may contain the registration number as an embedded hyperlink. Even if the registration number is not visible in the normal viewing mode of the file or when the work is printed from the file, it is deemed to be cited in the work itself because the text of the hyperlink can easily be revealed using standard software for viewing PDFs.

8.5.3.1. The entry in the *Official Register of Zoological Nomenclature* must give the name and Internet address of an organization other than the publisher that is intended to permanently archive the work in a manner that preserves the content and layout, and is capable of doing so. This information is not required to appear in the work itself.

8.5.3.2. The entry in the *Official Register of Zoological Nomenclature* must give an ISBN for the work or an ISSN for the journal containing the work. The number is not required to appear in the work itself.

8.5.3.3. An error in stating the evidence of registration does not make a work unavailable, provided that the work can be unambiguously associated with a record created in the *Official Register of Zoological Nomenclature* before the work was published.

Examples. The following are examples of admissible errors: In preparing a manuscript an author accidentally deletes the final digit of the registration number. An author states the wrong date of registration forgetting that ZooBank uses Coordinated Universal Time rather than local time. An author registers two works that are in review for publication and accidentally uses the same ZooBank number in both published versions.

The following are examples of inadmissible errors: An author, in preparing a manuscript for publication, states that day's date for the registration date, intending to register it later that day but forgetting to do so. The author discovers the omission after the work is published and immediately registers it; because

registration occurred after publication, the work is not available. A publisher discovers errors in a work and reissues it to correct those errors, but instead of registering the new edition, uses the original ZooBank number; the revised edition is not available because it was not separately registered.

[amended]

~~8.6. Works produced after 1999 by a method that does not employ printing on paper~~

~~For a work produced after 1999 by a method other than printing on paper to be accepted as published within the meaning of the Code, it must contain a statement that copies (in the form in which it is published) have been deposited in at least 5 major publicly accessible libraries which are identified by name in the work itself.~~

[amendment]

8.6. New methods of publication and archiving

The Commission may issue Declarations to clarify whether new or unconventional methods of production, distribution, formatting or archiving can produce works that are published in the meaning of the Code.

[amended]

Recommendation 8A. Wide dissemination. Authors have a responsibility to ensure that new scientific names, nomenclatural acts, and information likely to affect nomenclature are made widely known. This responsibility is most easily discharged by publication in appropriate scientific journals or well-known monographic series and by ensuring that new names proposed by them are entered into the Zoological Record. This is most easily achieved by sending a copy of the work to the Zoological Record, published by BIOSIS U.K.

Recommendation 8B. Desirability of works on paper. Authors and publishers are strongly urged to ensure that a new scientific name or nomenclatural act is first published in a work printed on paper.

Recommendation 8C. Public accessibility of published works. Copies of published works which contain a new scientific name or nomenclatural act should be permanently conserved in libraries whose works are publicly accessible (but for the deposition of works produced after 1999 by a method other than printing on paper see [Article 8.6](#)).

Recommendation 8D. Responsibilities of authors, editors and publishers. Authors, editors and publishers have a responsibility to ensure that works containing new names, nomenclatural acts, or information likely to affect nomenclature are self-evidently published within the meaning of the Code.

Editors and publishers should ensure that works contain the date of publication, and information about where they may be obtained.

Recommendation 8E. Inclusion of disclaimers. Editors and publishers should avoid including new names and the information that might appear to make the names available, or new nomenclatural acts, in works that are not issued for public and permanent scientific record (such as pre-symposium abstracts, or notices of papers to be delivered at a meeting). They should ensure that such documents contain a disclaimer (see [Article 8.2](#)), so that new names published for the first time therein do not enter zoological nomenclature unintentionally and pre-empt intended publication in another work.

[amendment]

Recommendation 8A. Wide dissemination. Authors have a responsibility to ensure that new scientific names, nomenclatural acts, and information likely to affect nomenclature are made widely known. Authors can accomplish this by publishing in appropriate scientific journals or well-known monographic series, by entering new names and nomenclatural acts into the *Official Register of Zoological Nomenclature* (ZooBank), and by sending copies of their works to the *Zoological Record*.

Recommendation 8B. Minimum edition of printed works. A work on paper should be issued in a minimum edition of 25 copies, printed before any is distributed.

Recommendation 8C. Electronic works. Electronic works should be structured to allow automated indexing and data extraction and should include actionable links to external resources (such as embedded hyperlinks to records in the *Official Register of Zoological Nomenclature*), where appropriate.

Recommendation 8D. Content immutable. The content of a work is immutable once it is published. Corrections should be made through notices of errata or other separate publications. Second or other additional printings of a work should be clearly labeled as such, with date of publication stated in the work, even if no changes have been introduced.

Recommendation 8E. Public accessibility of published works. Copies of published works that contain new scientific names or nomenclatural acts, or information likely to affect nomenclature, should be permanently conserved in or by libraries that make their holdings publicly accessible.

Recommendation 8F. Responsibilities of authors, editors and publishers. Authors, editors and publishers have a responsibility to ensure that works containing new names, nomenclatural acts, or information likely to affect nomenclature are self-evidently published within the meaning of the Code. Editors and publishers should ensure that works contain the date of publication, and information about where they may be obtained.

Recommendation 8G. Inclusion of disclaimers. Editors and publishers should avoid including new names and the information that might appear to make the names available, or new nomenclatural acts, in works that are not issued for public and permanent scientific record (such as pre-symposium abstracts, or notices of papers to be delivered at a meeting). They should ensure that such documents contain a disclaimer (see [Article 8.2](#)), so that new names published for the first time therein do not enter zoological nomenclature unintentionally and pre-empt intended publication in another work.

Recommendation 8H. Archiving encouraged. Authors are encouraged to ensure that their electronic works are archived with more than one archiving organization. Archiving organizations utilized for registered works should have permanent or irrevocable license to make a work accessible should the publisher no longer do so.

Article 9. What does not constitute published work

[amended]

~~9.2. photographs as such;~~

~~9.3. proof sheets;~~

~~9.4. microfilms;~~

~~9.5. acoustic records as such made by any method;~~

~~9.6. labels of specimens;~~

~~9.7. copies obtained on demand of an unpublished work [[Art. 8](#)], even if previously deposited in a library or other archive;~~

~~9.8. text or illustrations distributed by means of electronic signals (e.g. by means of the World Wide Web); or~~

~~9.9. abstracts of articles, papers, posters, texts of lectures, and similar material when issued primarily to participants at meetings, symposia, colloquia or congresses.~~

~~Recommendation 9A. Authors to avoid unintentional publication in abstracts. Authors submitting abstracts of conference papers primarily for issue to participants, should ensure that names and acts affecting zoological nomenclature in such works are not liable to unintended publication. They should ensure that volumes of abstracts contain appropriate disclaimers [[Art. 8.2](#)].~~

[**amendment**]

9.2. after 1985, works produced by hectographing or mimeographing;

9.3. before 1986 and after 2012, works issued on optical discs;

9.4. photographs as such;

9.5. proof sheets;

9.6. microfilms;

9.7. acoustic records made by any method;

9.8. labels of specimens;

9.9. preliminary versions of works accessible electronically in advance of publication (see [Article 21.8.3](#));

9.10. materials issued primarily to participants at meetings (e.g. symposia, colloquia, congresses, or workshops), including abstracts and texts of presentations or posters;

9.11. text or illustrations distributed by means of electronic signals (e.g. via the Internet), except those fulfilling the requirements of [Articles 8.1](#) and [8.5](#).

9.12. facsimiles or reproductions obtained on demand of an unpublished work [[Art. 8](#)], even if previously deposited in a library or other archive.

Example. A Ph.D. thesis that was distributed only to members of the student's thesis committee is listed for sale in the catalogue of a print-on-demand publisher.

The print-on-demand work is a reproduction of the thesis. Because the thesis was an unpublished work in its original form, it remains unpublished. If an editorial process was evident in converting the work to print-on-demand form (e.g., change to single spacing, repagination, addition of running headers), it might be considered published.

Recommendation 9A. Avoidance of new names and acts in meeting abstracts.

Authors should not include new names and nomenclatural acts in abstracts of papers or posters to be presented at meetings. This avoids the appearance that they are published and prevents inadvertent publication if the abstracts are widely distributed. (For disclaimer of abstracts volumes, see [Recommendation 8G](#).)

Article 10. Provisions conferring availability

[amendment] Recommendation 10B. Registration of names encouraged.

Authors are encouraged to include registration numbers from the *Official Register of Zoological Nomenclature* for new names and nomenclatural acts introduced in their publications, and to register names and acts that have been previously published.

Article 21. Determination of date

[amended]

21.7. Date not specified

~~If the date of publication is not specified in a work, the earliest day on which the work, or a part of it, is demonstrated to be in existence as a published work is to be adopted as the date of publication of the work or of that part. In the absence of evidence as to day, the provisions of [Article 21.3](#) apply.~~

21.8. ~~Advance distribution of separates and preprints~~

~~Before 2000, an author who distributed separates in advance of the specified date of publication of the work in which the material is published thereby advanced the date of publication. The advance issue of separates after 1999 does not do so, whereas preprints, clearly imprinted with their own date of publication, may be published works from the date of their issue (see [Glossary](#): "separate", "preprint").~~

[amendment]

21.7. Date not specified

If the date of publication is not specified in a work the earliest day on which the work, or a part of it, is demonstrated to be in existence as a published work is to be adopted as the date of publication of the work or of that part.

21.7.1. In the absence of evidence as to day, the provisions of [Article 21.3](#) apply.

21.7.2. Works issued as electronic copies are required to state a date of publication ([Article 8.5.2](#)), even if incompletely specified ([Article 21.3](#)).

21.8. Advance distribution of separates and preprints

Advance distribution of separates or preprints affects date of publication as specified by the following criteria:

21.8.1. Before 2000, an author who distributed separates in advance of the specified date of publication of the work in which the material was published thereby advanced the date of publication.

21.8.2. The advance issue of separates after 1999 does not advance the date of publication, whereas preprints on paper, unambiguously imprinted with their own date of publication, are published works from the date of their issue, if they fulfill the criteria for publication in [Article 8](#) and are not excluded by [Article 9](#) (see [Glossary](#): "separate", "preprint").

21.8.3. Some works are accessible online in preliminary versions before the publication date of the final version. Such advance electronic access does not advance the date of publication of a work, as preliminary versions are not published ([Article 9.9](#)).

Article 73. Name-bearing types fixed in the original publication (holotypes and syntypes)

[amendment]

Recommendation 73G. Specific reasons for designation of an unpreserved specimen as the name-bearing type. An author should provide detailed reasoning why at least one preserved specimen, whether a complete individual organism or a part of such an individual, was not used as the name-bearing type for the new taxon and why the formal naming of the taxon is needed at a point in time when no preserved name-bearing type will be available.

Recommendation 73H. Assertion of due diligence. When establishing a new species-group taxon without a preserved name-bearing type, steps taken by an author to capture and preserve a physical specimen of the new taxon and/or locate an existing preserved specimen in natural history collections should be recounted.

Recommendation 73I. Consultation with specialists. Before the designation of an unpreserved specimen as a name-bearing type, an author should consult with specialists in the group in question.

Recommendation 73J. Comprehensive iconography and measurements. When establishing a new species-group taxon without a preserved name-bearing type, the author should provide extensive documentation (e.g., multiple original high-

resolution images, DNA sequences, etc.) of potentially diagnostic characters as completely as possible.

Article 74. Name-bearing types fixed subsequently from the type series (lectotypes from syntypes)

[amended]

~~74.7.3. contain an express statement of the taxonomic purpose of the designation.~~

[amendment]

74.7.3. contain an express statement of deliberate designation (merely citing a specimen as "lectotype" is insufficient).

Example. A statement such as "lectotype hereby designated", "lectotype by present designation", "I choose specimen X as lectotype" would fulfil this requirement, but "lectotype: specimen X" would not.

[amendment]

Recommendation 74G. Not merely for curatorial purposes. The designation of lectotypes should be done as part of a revisionary or other taxonomic work to enhance the stability of nomenclature, and not for mere curatorial convenience.

Article 78. Powers and duties of the Commission

[amendment]

78.2.4. The Commission may establish and maintain an *Official Register of Zoological Nomenclature* (ZooBank), to record essential information about works, names and nomenclatural acts. The *Official Register of Zoological Nomenclature* may be maintained in electronic or paper form. The *Official Lists* and *Official Indexes* may be maintained in the Official Register.

Glossary

archive, *n.* A depository for works (q.v.); *v.* To place a work in an archive with the intent that it be permanently preserved there.

electronic publication. See under publication

Official Register, n. An abbreviated title for the *Official Register of Zoological Nomenclature* [[Article 78.2.4](#)], maintained by the Commission to record information about works, names and nomenclatural acts (see [ZooBank](#)).

optical disc, *n.* A laser-readable data storage medium. Compact disc read-only memory (CD-ROM) and digital video disc read-only memory (DVD-ROM) are optical disc formats that could be used to produce available works after 1985 and before 2013 ([Article 8.4.2](#)).

publication, *n.* (1) Any published work. (2) The issuing of a work conforming to [Articles 8](#) and [9](#).

electronic publication. A publication issued and distributed by means of electronic signals.

register, v. To enter into the Official Register information about a work, name, author, nomenclatural act, or other item tracked for purposes of zoological nomenclature.

registration number, n. A unique identifying number or alpha-numeric code assigned in the Official Register to a particular item.

specimen, n. An example of an animal, or a fossil or work of an animal, or of a part of these. See Article 72.5 for the kinds of specimen eligible to be name-bearing types of nominal species-group nominal taxa.

specimen, preserved. A non-living specimen that is deposited in a scientific collection with the intention to keep it for further study.

ZooBank, n. The online version of the Official Register of Zoological Nomenclature.