

Notes on Bibliography for Paleontological Publications

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Editorial Note: Notes on Bibliography for Paleontological Publications

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Note to readers. The Palaeontological Society of Japan requested Dr. Janal to prepare a guide on citations in Paleontological Research, especially those in unfamiliar styles, e.g. classic literatures and publications/names in non-English languages. We hope this document will be helpful to authors when compiling the “References” section of their contributions.

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Introduction

The purpose of this guide is to bring uniformity to the bibliography of paleontology as it occurs in Paleontological Research (hereafter PR) and other publications of the Palaeontological Society of Japan, and to assist in the writing and editorial process. The guide should also be useful to editors, authors and readers elsewhere. It is a distillation of the experience of a long-time researcher and editor of earth-science materials. The topics discussed and the pointers given reflect observed problems in the treatment of references in papers at the manuscript stage. That is, the tools and procedures mentioned are intended for the stage of editorial verification, rather than that of primary research. The corrective suggestions herein are focused on matters of substance rather than individual style, to which some latitude is to be expected.

The branches of biology concerned with the classification of organisms are unique among the sciences in utilizing scientific literature from the entire time span of that endeavor. It is not infrequent for references to be cited reaching as far back as the beginning of binomial nomenclature in the works of Linnaeus, 1753 and 1758

for botany and zoology, respectively. Scientists in other fields of enquiry may shake their heads on seeing citations for papers that are two or two and a half centuries old, when in their fields the data in papers of a few years date are already obsolete. Yet this usage is justified by virtue of the law of priority, which holds that the earliest naming of a taxon that meets the formal criteria for validity has standing over further descriptions of the same taxon under other names, that is, objective or subjective junior synonyms. The object is stability. Because all the literature since the time of Linnaeus’ publications which named or name taxa in a fashion that met then or now current criteria for availability, they can and do turn up in the body of articles, primarily in citations in synonymy or in the breakdown of higher levels of the taxonomic hierarchy, and hence should appear in the bibliography section of those papers. As examples of the very earliest possible dates that have appeared in PR:

Order Filicales
Family Osmundaceae Diels, 1898
Genus *Osmunda* L., 1753
Subgenus *Osmunda* L., 1753¹

Order Hymenoptera Linnaeus, 1758

Suborder Symphyta Linnaeus, 1758

Family Turbinidae Rafinesque, 1815

Genus *Turbo* Linnaeus, 1758

As the above examples show, these Linnaean names are still valid and in use.²

The use of these senior taxa does not necessarily mean that the earliest description is the most thorough or even the most accurate; the farther back one goes, the less likely that will be the case. In the early scientific literature, diagnosis rather than exhaustive description was the rule. Rather, it is the name holder for that particular taxon.

What is the purpose of bringing up such archaic references, and indeed of references in general? Aside from placing the taxon in the traditional (i.e., not cladistic) taxonomic hierarchy, as in the above examples, the purpose is twofold: first, from the point of view of the author, references acknowledge a source of information that has contributed to the structure and conclusions of the work; second, from the point of view of the readership, references draw attention to a subject that they may wish to investigate further, for its intrinsic interest or to verify the interpretation drawn from that work. In that connection references should be both reliable and retrievable from the information given. This is why it is vital that references be accurate and uniform, and conform to general bibliographical standards. Depending on the content of the paper, references can be to taxonomic sources or not (stratigraphic, geophysical, oceanographic, and so on). The older a reference used is, the more likely it will be to a taxonomic source, since references in other areas eventually lose their relevance or are superseded. Finally, there is the editorial aspect. Correct use of references eases the work of editors, who stand in the middle of the conversation between authors (creators) and readers (users).

Can a reference be ideal? In theory, yes. In practice, in many instances that is only an approachable goal. Especially for older references, for which the fashion was to have very long, run-on titles, there will always be allowable variations in how much of a title it is necessary to give, again keeping in mind the goal of making a reference easily traceable by the reader. This can be the case, for example, in expedition reports, the full titles of which usually contain expanded information about the ship and its command that some may consider optional.³ Besides truncating references, a question can also arise as to where to begin a title. Numerous titles in the nineteenth century bear evidence of being presented “live,” a frequent practice in the times when papers were first read aloud by a third person, e.g. the seminal 1858 papers of Darwin and Wallace introducing the concept of natural

selection that were first read to a meeting of the Linnaean Society before being published in the Society’s *Proceedings*. Hence one can see in various languages the phrase “So-and-so presented a paper on . . .,” the “on” in various languages (Sur, Ueber, O/Ob (Russian) etc.) then becoming the start of the conventional title.

Several decades ago it was realized that far too much editorial labor was expended in standardizing abbreviations in the bibliographies of scientific publications, and that there was also variation in application, since different organizations and journals had different styles. Consequently, there was a broadly adopted changeover to giving journal titles in full without abbreviations or, for the most part, punctuation such as commas. The style of PR follows that rule. This method applies only to the actual title of the journal, including subordinate series, and not to the numbering of issues. This point will be returned to later.

In practice, it is impossibly time-consuming for editors to check and verify each and every reference in an article’s bibliography. The minimum that can be expected of authors is that they maintain consistency within the same submission. Reliance by authors on their personal “card file,” now superseded by its electronic substitute, rather than always referring back to the original, unfortunately perpetuates errors. Furthermore, only references that are actually cited belong in the bibliography.

The organization of the rest of this document is as follows. First is a list of useful sources and ways to check references both for authors and editors. Then each field of a typical reference - author, date, title, source, issue (if a serial), publisher (if not a serial) will be dealt with in turn. Selected examples serve as guidance; it is not possible to cover all the bibliographical possibilities and quirks that occur within a literature now spanning two and a half centuries.

Finding or checking a reference

In the past, only major libraries of long existence had extensive holdings of early scientific literature and runs of periodicals going back to the beginnings of “journal science” in the late eighteenth and early nineteenth centuries. Today it is largely possible to secure digital visual evidence of vast swathes of the taxonomic literature, and to arrive as close as possible to the equivalent of an eye-on view of the actual paper or book. The following finding aids have proved to be useful for this purpose. This list is not exhaustive as many taxonomic groups will have their own specialized sites.

1. *Biodiversity Heritage Library*. For older publications the Biodiversity Heritage Library is unmatched. This is because it relies on page-by-page images of journals and

books. Consequently, the actual appearance of the journal title page for the given year and issue, if applicable, and the article title pages are objective. It also provides alternate citations for historical book titles and changes in journal names over time. It does not cover, except incidentally, nontaxonomic papers; that is not its goal. A caveat is that plates, if needed for comparison or identification purposes, will not be of the same quality and size as the original.

2. Another archival service is *Hathi Trust*, which provides OCR-type outputs in a uniform, dot-matrix-type typeface. *Google Books* provides full-view coverage for much older out-of-copyright material, but is spotty, and their terms of use may prove to be an obstacle.

3. Library catalogs. *WorldCat* covers library holdings and theoretically provides a library standard for references. However, there are often several alternatives for the same book, depending on how the holding library cataloged the particular item. It also sometimes includes individual articles in books as separate entries. Its contents depend on the efforts of librarians. Another megasearch site with wide coverage is *KVK - Karlsruher Virtueller Katalog*, especially good for German-language references. Searches there may lead to digitized downloadable reproductions. Asian national libraries such as the National Diet Library of Japan are, however, not searched there.

4. *Google Images* is useful for modern references. One can find images of many journal covers and series, which can be definitive, as well as the first page of numerous articles. This can be useful in determining whether, for example, a periodical uses the word “number” or not on the cover.

5. Specialist dealers in the antiquarian book trade who have posted their old and current catalogs on line often provide detailed information on books and archives not available elsewhere. Two notable firms, both in the Netherlands, are *Antiquariaat Junk* and *Antiquariaat Schierenberg*. The niche field of specialist dealers in natural history and science has diminished from its heyday; one prominent old firm, *Weldon and Wesley* (UK) is no longer in business. Anyone interested in the history of paleontology and natural history in general can benefit from perusing back and current numbers of such dealers’ catalogs. Images of copies that have been offered for sale by Internet dealers still specializing in geological publications can find their way into Google Images.

6. Standard references. The *Catalogue of Scientific Papers* [various dates] *Compiled and Published by the Royal Society of London* was able in the nineteenth century to list all incoming materials. Now such a task would be impossible. Note that the Biodiversity Heritage Library has only vol. 1, published in 1867 and comprising

materials from 1800 to 1863. The project continued to the year 1900.

7. Museum library catalogs: Smithsonian Libraries, American Museum of Natural History, Natural History Museum, London (formerly British Museum (Natural History)). Institutional library catalogs can contain useful bibliographical supplementary information on acquisition, dating and other matters. They are especially useful for “in-house” series emanating from those institutions.

8. For microfossils, the fiche catalogs of Foraminifera and Ostracoda, originally published by the American Museum of Natural History and then by Micropaleontology Press after it separated from the Museum, were a herculean effort of long duration that aimed to provide standard references for the first descriptions and emendations of genera and species in those groups. Electronic versions with page images are currently accessible by subscription. The earlier volumes of the catalogs gave type references in abbreviated form, however. These would need to be converted to the current style. In addition, the type references that appear in each entry in the catalogs are only concerned with the first page number or page span where the name validly appears, and hence merely provide a starting point for full citation in a bibliography. Less extensive catalogs were also published by the Press in fiche format for planktonic foraminifera, diatoms, and radiolaria, and in handbook form for Cenozoic calcareous nannoplankton.

9. The website of the World Register of Marine Species, www.marinespecies.org, with numerous subregisters, is a very reliable source for dates of creation of names and references thereof. Coverage is dependent on the submissions of volunteer experts. Another such site is fossilid.info.⁴

10. Cases considered by the International Committee on Zoological Nomenclature (ICZN) in the *Bulletin of Zoological Nomenclature*. Since 2017 this publication has been digital only.

References dissected into components

Authorship, or what's in a name?

Treatment of authors’ names is relatively straightforward. The vast majority of languages customarily used for scientific literature follow the principle of inheritance of a family name. In such cases, the family name is followed after a comma by the initials of the given names of the authors. Names in which the family name is first in the original language, such as Japanese, Chinese, Korean, Vietnamese and Hungarian are treated as if they were final and are separated by a comma from the given names. Burmese names are not serial, i.e., not inherited from forebears, and are cited in full according to the indi-

vidual's preference, e.g. *Thaung-Htike*. A few other cultures also allow the practice of a single given name only (Afghanistan, Indonesia) or a name in which the given name is paramount (Malaysia). In those rare cases, the single name suffices. A guide to such practices is newspaper style, e.g. that of *The Times* (London) as such names need to be cited properly in stories. It may be noted in this context that the purpose of naming an author is to identify that person conclusively. Hence, it is sometime argued that Chinese names should be given in full rather than in the form X, A-B because of possible confusion caused by the paucity of surnames and by Latinization and abbreviation of the personal name. Should a Chinese author give his or her name in full, their preference should be followed.

In the following examples given names are represented by initials, as they would be in a bibliography.

In German names, and, to a lesser degree, French, Spanish and Italian names, prefixes to family names are or may once have been indications of higher status, but in any case the family name is what is important. Alphabetization should follow the principal part of the family name: *Orbigny, A. d'*, *Sagra, R. de la*, *Lapparent, A.-F. de*, *Koenigswald, G. H. R. von*, *Möller, V. von*, *Baer, K. von*. Easily the most familiar of this aristocratic tribe is Lamarck, with his double-barreled "de" name: Lamarck, J.-B. P. A. de M. de, and certainly one would never think of alphabetizing his name as "De Lamarck."⁵ Compound names are not separated, e.g. *González Riga, B. J.*; *Sellier de Civrieux, J. M.*; *Teilhard de Chardin, P.* Some authors discarded the honorific modifier in print even when entitled to use it, e.g. A. E. von Reuss signed his *Die Versteinerungen der Böhmisches Kreideformation* simply as A. E. Reuss.

In Holland, on the other hand, names beginning with "van," "van der" or some other prefix are just inherited locational indicators and are so common that it would make no sense to alphabetize according to the prefix. Hence, for a different reason from the above, Dutch names are alphabetized under the principal part of the surname and the prefixes to the surnames should not be capitalized, e.g. *Bold, van den*; *Morkhoven, van der*; *Harten, D. van*. References in the text can be given with or without the locational indicator, e.g. van den Bold or Bold, van Morkhoven or Morkhoven; the difference is immaterial.

Occasionally, a scientist moving from one linguistic sphere to another prefers to keep the separable prefix as the beginning of a new surname, and earlier work will differ from later work in terms of alphabetization. In such rare cases the personal preference of the author should be followed. In addition, of course, family names long outside of the territories in which they originated become naturalized, so to speak, to the prevailing standard and

prefixes are capitalized as ordinary family names, e.g. *Van Couvering, J. A.*

The practice is different with Belgian names. The prefix can be capitalized and the name is alphabetized under the prefix: De, Van, etc., e.g. *De Wever, P.*

A simple rule of thumb with regard to such situations is whether the prefix is capitalized when the name is written out in the normal fashion with the given name first. The Wikipedia page dealing with Dutch names differs with the preceding and states that this form of citation does not apply to names with solely "Van" as an element.

Generational names should have the generation indicator at the end separated by a comma: *Pessagno, E. A., Jr.*; *Loeblich, A. R., III.*

In the case of collective authorship, in which an organization or group rather than an individual or individuals is the nominal author, the name of the collective is treated as the author, except that "The" can be omitted. Organizations such as geological surveys and temporary special-purpose groups, e.g. *Xizang Scientific Expedition*, fall into that category. In addition, during the Cultural Revolution in China many paleontological publications were issued using a collective name for ideological reasons. While such publications can be referenced by the name of the collective, in order to conform to nomenclatural standards and validate the new taxonomic names therein authorship has to be assigned to some individual or individuals.

In the context of authorship, mention should be made of individuals clearly named as editors, in which case the journal style is clear. This can apply both to books, a collection of articles in a periodical, and continuing series such as the *Treatise on Invertebrate Paleontology*. A common mistake occurs in the case of the Deep Sea Drilling Project (DSDP) and successor projects. Many times, the scientific personnel is referred to in references as the editors; this is simply incorrect. If there is no responsible editor in the usual sense it is proper to name the first two or three authors, or the Chief Scientists, and then add "*et al.*", not "*et al. eds.*" Each volume in the *Initial Reports* of the DSDP in fact gives suggested citation forms in its preliminary pages. The format differs from the style of PR, but in principle conforms to the preceding comment. Persons identified in the preliminary pages as editors are editorial staff, not the scientific overseers of the volumes.

Examples involving the transliteration of authors' names in languages that do not use the Latin alphabet are given in the "Titles" section below.

Dates

Year spans are allowable in citations, e.g. *Lyell, C., Principles of Geology, 1830–1833*,⁶ *Sowerby, J., 1812–1815, The Mineral Conchology of Great Britain; or*

*Coloured Figures and Descriptions of those Remains of Testaceous Animals or Shells, which Have Been Preserved at Various Times and Depths in the Earth, [Volume I]*⁷ but in the text taxa must be ascribed to the year date of the particular volume, fascicule or part within the larger work. Ideally, this information could be pinpointed, but unless it is a matter of unraveling some priority question, by now highly unlikely to arise, a simpler form of citation is more practical. The goal of the reference, as always, should be to enable the reader to work back to it. For information about dates of publication when in doubt, the *Nomenclator Zoologicus* provides an authoritative source within its temporal scope; this project appeared in nine volumes from 1939 to 1954, and a final volume was published only electronically. The *Index Animalium* by Charles Davies Sherborn (1861–1942), a completed work by a bibliographical legend, covers the same territory for names proposed from 1758 to 1850. Both are obviously useful only for animal names.⁸

Such all-embracing projects, whether in zoology or botany, cannot any longer be sustained, but many databases for various groups are taking their place, e.g. for algae (www.algaebase.org). For fossil plants *US Geological Survey Bulletin 1013, Index of Generic Names of Fossil Plants, 1820–1950*, has a useful bibliography with references in the old abbreviated format. An ongoing effort is the International Fossil Plant Names Index (IFPPNI, ifpni.org). For dating of works in parts, articles in the journal *Archives of Natural History*, formerly *Journal of the Society for the Bibliography of Natural History*, have often taken on this problem.⁹

Titles

The rendering of titles of articles and books is also relatively straightforward. Preferentially capitalization within article titles should follow the rules for the particular language; however, it is no great matter if capitalization is used more liberally, especially with book titles, as long as the usual words that are never capitalized are not. German still requires all proper nouns to be capitalized; English once did so, and also Danish. It would be unnecessarily pedantic to reproduce unusual capitalization in such cases. One can be left at sea in cases where the entire title is in capital letters, and then judgment must be used. In Russian, German, French, and other languages adjectives, or rather noun used as adjectival modifiers that are capitalized in English, e.g. Permian deposits or Triassic beds, are written in lower-case: permskiye otlozheniya, dépôts triassiques, triassische Schichten, etc. Names of formations and stratigraphic units take capital letters when used as proper nouns: Trias, Perm (Russian), Jurasique (French), Jura (German), etc. Classical Latin did not use lower-case letters, so capitalization of Latin, or rather

neo-Latin, titles is a later development and something of a free-for-all. The sensible practice is to capitalize only the words that would normally be capitalized in English, e.g. possessives, connectives and prepositions are not capitalized (definite and indefinite articles do not exist in Latin). The same criteria would apply to Chinese, Japanese, and others languages where capitalization does not exist, but hardly ever are such titles given in transliteration.

Transcription of titles should be as literal as possible. A common mistake is to translate something in the title into a different language, making the citation a hybrid. Within a title words that may need to be spelled out should be in the same language as the rest of the title. So, for example, Teil or, in the old spelling, Theil (German) and Pars (Latin) should not be changed to Part, T. (French “Tome” or Latin “Tomus”) should not be changed to “Vol.” Outside of the title proper, it is allowable to use translations, e.g. vol., no. etc. can be the default for many equivalents in other languages. However, by the same token, it is bad style as well to mix languages in the source part of the reference after the title. If one uses “Bd.” (i.e., “Band”) rather than “vol.” then one should use Heft or “H.,” “Nr.” “Lief.” (Heft, Nummer, Lieferung, respectively) as the case may be rather than the English equivalents “issue,” “no.,” “fasc.” (fascicule). Likewise, if one uses e.g. nov. ser. (novaya seriya, Russian), n. F. (neue Folge, German), etc., instead of “new ser.” then the other terms used should be in the same language. Publications from Russian research institutes often use “vypusk,” which can be abbreviated as “vyp.” for monographic series instead of “no.” or “issue no.” Nineteenth-century German-language compilations of proceedings were often tallied as “Jahrg.” (Jahrgang) rather than using volume numbers; the same found equivalents in other languages, e.g. Jaarg. (Dutch), Aar (Swedish). All these terms preferably should be retained in the original language rather than substituting “year” or “vol.” for them.

Appended information after the title and source in the form e.g. “(in Japanese)” or certain other languages is only necessary if the title has been transliterated from a non-Latin alphabet and/or a translation of the original title has been provided. It is not necessary to point out that a reference is in Latin, French, German, or any other language using the Latin alphabet, or to translate titles from those languages. Although knowledge of Latin is no longer common, titles in Latin are conventionally never translated, e.g. of course Linnaeus, 1758, Scopoli, 1777¹⁰ (wherein Ruminantia was introduced). Use of Latin titles was long maintained in botanical publications as well, e.g. Heer, 1859, *Flora Tertiaria Helvetiae*. As a default, one can assume that many papers and guides published by local authorities in Japan are entirely in Japanese; these should be identified as such, even if it seems obvious.

When an English abstract has been provided the title as given in it should be used, but minor grammatical and spelling errors in that case can be corrected.

Examples of citation of non-English references:

(Book) Shimansky, V. N., 1956: *Problemy i Zadachi Paleontologicheskikh Issledovaniy* [Problems and Aims of Paleontological Research], 95 p. Moskovskiy Gosudarstvenniy Universitet imeni M. V Lomonosova, Moskva. (in Russian; translation of title provided herein)

Parenthetically, we note that “imeni” means “in the name of” or “named after” and the person’s name itself is in the genitive case; hence, in English this becomes the M. V. Lomonosov State University, or, more colloquially, Lomonosov State University.

(Article) Ruzhentsev, V. E. and Shimansky, V. N., 1954: Nizhnepermские svernute i sognute nautiloidei yuzhnogo Urala. *Trudy Paleontologicheskogo Instituta Akademii Nauk SSSR*, vol. 50, p. 1–152, pls. 1–15. (in Russian; original title transliterated)

or

(Article) Ruzhentsev, V. E. and Shimansky, V. N., 1954: Lower Permian coiled and curved nautiloids of the southern Urals. *Trudy Paleontologicheskogo Instituta Akademii Nauk SSSR*, vol. 50, p. 1–152, pls. 1–15. (in Russian; original title translated)

In the following example the title as given in the English abstract is used:

(Article) Chen, M. and Xiao, Z., 1991: Discovery of the macrofossils in the upper Sinian Doushantuo Formation at Miaohu, eastern Yangtze Gorges. *Scientia Geologica Sinica*, vol. 4, p. 317–324. (in Chinese with English abstract)

(Book)

Nishimura, S., 1974: *Origin and History of the Japan Sea: an Approach from the Biogeographic Standpoint*, 274 p. Tsukiji Shokan, Tokyo. (in Japanese)

The above reference illustrates the practical problems associated with translation of book titles; the problem is not so acute with journals, since even translated titles can be located by issue and page number. The English title is a translation of the Japanese title: 日本海の成立 : 生物地理学からのアプローチ (Nihonkai no seiritsu: Seibutsu-chirigaku kara no apurochi). The Japanese title can be found in WorldCat in Japanese characters, but not the English-language one, which may have been supplied by the author or publisher. A search alone in that site for Nishimura, 1974, returned more than 15,000 hits. Only by narrowing the search down using the kanji for the Sea of Japan was it possible to locate it. WorldCat, however, gives author names when appropriate in both the original writing system and the Latin alphabet as well, hence in this particular instance the author is identified as “Nishimura, Saburo.”

Over the course of time various transliteration systems have been proposed and used for Japanese, Chinese, Russian, and other languages not using the Latin alphabet. Russian names appear differently when transliterated into English, French, German, and so on: Nazarov, Nazarov, Nazarov. Variants of a few Russian scientists with non-Russian surnames in whole or in part exist, e.g. Miklukho-Maklai can be written as Miklukho-Maclay (the latter part of the dual last name is due to a Scottish ancestor). The contemporary spelling in the source should be followed and should create no real confusion, e.g. the Chinese vertebrate paleontologist Yang Zhongjian first published as Chung-Chien Young or even C. C. Young. An alternative spelling in parentheses, e.g. Huzimoto (Fujimoto) is helpful when the same person’s career spanned the adoption of two different transliteration systems.

Russian transliteration systems never use the letter “c” by itself; “ch” is a letter in the Russian alphabet, along with “zh”, “ts”, “kh”, “yu”, “ya”, “sh”, “shch.” These may occur by themselves when personal names begin with those letters are abbreviated, e.g. Popov, Yu. A. (Yuri Aleksandrovich Popov). The Cyrillic letter “C” in the Russian alphabet has the sound of “s” and is so transliterated, e.g. Cyrillic CCCP is transliterated as SSSR and translated as USSR.

So far as journal titles are concerned, some Russian journals can be spelled slightly differently depending on the transliteration system used, e.g. Paleontologicheskii Zhurnal (preferable, as the ending “iy” represents two different letters), but also Paleontologicheskyy, Paleontologicheskyy; as long as the usage is consistent within the article, that is acceptable.

Journal titles

For modern periodicals, the ISSN can be used as a standard or a guidance.

Older serials very often change titles over time, or added sections. The prevailing title for the specific year should be used. The deposing of monarchies is a fertile ground for the sudden removal of royal prefixes to titles. After the end of World War I, e.g. all the “K. K.” (Kaiserlich-Königlich) titles in Germany, Austria, and Hungary became republican ones. In Japan, e.g. Tohoku Imperial University became Tohoku University in 1947 with a corresponding change in publication titles. Again, an image search of the cover, if successful, would provide conclusive evidence of the correct expression of the journal title for the particular year or time interval. It is sometimes argued that royal prefixes add nothing and can be omitted, but that would often produce strangely truncated names, so it is best to leave them.

Optional clarifications should be put in parentheses: Transactions of the Geological Society (London) [first

series only, after which the title became Transactions of the Geological Society of London]; Philosophical Transactions of the Royal Society (London) prior to 1800, when “of London” was added. To this day, the Linnaean Society does not identify itself as “of London” in its various journals; to add that would be a mistake.

Many Japanese and Chinese serials have official names in the home language as well as English names, e.g. 地質学雑誌 (Chishitsu-gaku Zasshi) is the quite different official name of the Journal of the Geological Society of Japan. The native-language names are rarely used except for very short titles; this appears to be a matter of style or habit. In that case the English names is customarily primary: *Fossils* (Kaseki); *Earth Science* (Chikyu Kagaku). Some journals are virtually never referred to by their Japanese names, e.g. *News of Osaka Micropaleontologists*, even though written in Japanese (in more recent years articles therein have English abstracts). For other languages, e.g. Russian, the practice of using translated titles should be discouraged, as it obscures the identity of the issuing body and the original language: *Trudy Arkhticheskogo Instituta Akademii Nauk SSSR*, not Transactions of the Arctic Institute of the Academy of Sciences of the USSR. Some Russian institutions are also conventionally referred to by acronyms; these can be put after the full name, e.g. *Trudy Vsesoyuznogo Nauchno-Issledovatel'skogo Geologicheskogo Instituta (VSEGEI)*, for the Soviet period. Since some of these institutions have very similar names, e.g. *Trudy Vsesoyuznogo Neftyanogo Nauchno-Issledovatel'skogo Geologorazvedochnogo Instituta (VNIGRI)*, *Trudy Vsesoyuznogo Nauchno-Issledovatel'skogo Geologicheskogo Neftyanogo Instituta (VNIGNI)*, this is a helpful device. Secondary literature may sometimes use just the acronym, e.g. *Trudy VNIGRI*, but the full name should be used when known. Monographs published by these organizations normally have publishers, often identified by portmanteau names, e.g. in Soviet times Gosgeolizdat, Gostoptekhzizdat, and so on. Hence, these sorts of publications can be treated as one would a typical book, even if they are also part of a series. With the demise of the Soviet Union references to “Vsesoyuznyy” (“All-Union”) in such names were changed to “Vserossiyskiy” (“All-Russian”), but the acronyms remained the same. Each republic in the Soviet Union, with the exception of the Russian republic, which held the headquarters of the Academy of Sciences of the USSR, had its own Academy of Sciences. The independent states which followed the breakup of the Soviet Union renamed their academies, and likewise the institutes in that organizational structure changed names. A helpful table of the changes can be found in Wikipedia in the article on the Russian Academy of Sciences. Some Russian serials do indeed have translated equivalents,

and for those the English title can be used: *Paleontological Journal*, which is the English edition of *Paleontologicheskii Zhurnal*. In the time of scientific competition between the United States and the Soviet Union the US government sponsored cover-to-cover translations of certain serials and monographs. Again, these have their own English titles.

Many journals are founded with separate series or are split with further specialization into series or sections; the series title is part of the journal title and should be written out verbatim as in the original, e.g. *Science Reports of the Tohoku Imperial University, Sendai, Japan, Second Series (Geology)*. In contrast, “new series” and similar formulas are not part of the journal title, but rather represent a chronological reset, e.g. *Annals and Magazine of Natural History*, ser. 4 (a new series starting every ten years from 1848, this one beginning in 1868), *Transactions of the Geological Society (London)*, ser. 2 (from 1822), *Transactions and Proceedings of the Palaeontological Society of Japan*, n. ser. (or new ser.).

The place of publication and publisher is customarily supplied when citing a book or a continuing series and can change over the course of time, e.g. prior to 1968, the Geological Society of America, co-publisher with the University of Kansas Press of the *Treatise on Invertebrate Paleontology*, was headquartered in New York City, thereafter in Boulder (Colorado). Places of publication that might be unrecognizable or unfamiliar can be explained:

Born, I. von, 1778: *Index Rerum Naturalium Musei Caesarei Vindobonensis. Pars Prima, Testacea*, 458 pp. Officina Krausiana, Vindobonae (Vienna).

Note that the English place name is used in the above example, rather than Wien; either would be acceptable. Other Latinate place names that often come up, those of early centers of scientific inquiry, are Lugduni Batavorum (Leiden) and Holmiae (Stockholm). The Latin suffix -ensis means “of that place,” e.g. Londonensis, and is also frequently used in taxonomic names. An Internet source for Latin place names used in pre-1800 imprints is <https://rbms.info/lpn/>. Place names that have been anglicized should preferably be given in the original, Moskva rather than Moscow, Warszawa rather than Warsaw, and so on, or at least a consistent choice should be made. “Impensis auctoris” (Latin), “aux dépens de l’auteur” (French), and similar expressions mean “at the expense of the author” and ordinarily signify that the author has financed the printing of the publication, hence “The author” can be used for the publisher.¹¹

It is not uncommon to find the same book cited in different ways in a bibliography at the manuscript stage. This especially occurs with collections of articles on a single topic in seminars, conference proceedings, and similar

publications, where it is likely that more than one article is relevant. A particular problem is inconsistency in place of publication within the same bibliography. Many publishers now have multiple offices in major world cities, and one and the same book can be cited as published in Amsterdam, New York, London, and so on. In those cases the WorldCat listing offers guidance on the one city to choose.

Page ranges

The last part of a typical reference is the complete page range of the article in a journal or a collection of articles, or the number of pages in the case of monographs and books. It is not required or usual in PR to include the number of plates, but if an author does so it is no great matter to leave that information. However, there are publications such as atlases that consist entirely of plates, and in those cases it makes sense to give the number of plates.

Complete collations of older books may involve pages before the regular numbered pages, often expressed as lower-case Roman numerals, and unnumbered index pages; examples of the former are the two Linnaeus references given in the second note. Since older references are most likely brought up for taxonomic purposes, and it is unlikely that such pages would include anything of taxonomic content, citing only the regular numbered pages, the “core” of the text, may be preferable and is certainly labor-saving. The purpose of accuracy is not to turn scientists into bibliographers. The important thing is that a reference can be tracked down without difficulty.

Consistency

Throughout this document we have stressed the importance of being consistent within the bounds of a single article’s references section. Discrepancies erode confidence in reliability. And once again, there is not necessarily only one “correct” way to cite a reference, at least in more complicated cases, but the standard to keep in mind should be consistency. References reviewed for uniformity before submission ease the work of editors.

Notes

1. It is the convention in botany not to specify author(s) for taxonomic ranks higher than the order, probably because there is no firm consensus on valid author(s) for them. The International Association for Plant Taxonomy (IAPT) recommends that all authors of plant names have her/his standard form of author name. This system facilitates distinguishing authors with similar names. First-time authors of botanical papers should consider creating such a name on submission. Please check the standard

form at the following site: www.ipni.org.

2. The titles of these references lay out the entire Linnaean method. The following are in PR style.

Linnaeus, C., 1753: *Species Plantarum. Exhibentes Plantas Rite Cognitas. ad Genera Relatas. cum Differentiis Specificis, Nominibus Trivialibus, Synonymis Selectis, Locis Natalibus, Secundum Systema Sexuale Digestas. Tomus I-II*, xi + 1200 + 21 p. Impensis Laurentii Salvii, Holmiae (Stockholm).

Linnaeus, C., 1758: *Systema Naturae, per Regna Trium Naturae, Secundum Classes, Ordines, Genera, Species, cum Characteribus, Differentiis, Synonymis, Locis. Editio decima, reformata. Tomus I*, iv + 824 p. Impensis Laurentii Salvii, Holmiae (Stockholm).

The publishing information could indeed be simplified as Laurent Salvius, Stockholm. Note that the 10th edition of the *Systema* is in two volumes; the first volume is the zoology volume.

3. e.g. *Reise der Österreichischen Fregatte Novara um die Erde, in den Jahren 1857, 1858, 1859* (the main title), which continues with the hardly ever cited name of the commander in charge of the expedition. Similarly, citations of the *Reports on the Scientific Results of the Voyage of H.M.S. Challenger during the years 1873–76* do not need to include the subsidiary information on the title pages, crediting the responsible naval and scientific persons. Expedition results can be treated as if they were serials, or as books, in which case the publisher becomes relevant.

4. In preparing this document random searches were made in various fields in www.marinespecies.org. A search for Rugosa found that the name, authors, and date were recorded (Rugosa Milne-Edwards and Haime, 1850), but the original 1850 reference was not provided. A search for Haeckel as author produced 43 references, which cannot be comprehensive. In contrast, a search for Haeckel on the Karlsruhe Virtueller Katalog produced more than 900 hits, which included, however, secondary literature. A search for *Didymograptus* produced 42 hits, the most recent date of which was 1976. On fossilid.info the same genus name produced a list of 16 species names, the most recent of which was 1991, but the sample literature was current to 2020. These results represent the variability one may expect in seeking certain kinds of information and using multiple sites.

5. This is the form of his name used uniformly by the Biodiversity Heritage Library. In his publications he himself, or his publishers, signed his work very variously, e.g. in both early and later works he was M. le Chevalier de Lamarck, during the revolutionary period Le C. Lamarck, i.e., Citoyen [Citizen] Lamarck, and in other instances simply Jean-Baptiste Lamarck. This illustrates that one need not literally follow title pages in citing authorial

names. “Lamarck, J.-B.” is an acceptable alternative for the longer form. His standard author abbreviation for botanical purposes is Lam.

6. Certainly the most famous multivolume work in the history of geology, although not a taxonomic work. Fossils are tabulated and illustrated in the third volume. A suggested citation:

Lyell, C., 1830–1833: *Principles of Geology, Being an Attempt to Explain the Former Changes of the Earth's Surface, by Reference to Causes Now in Operation*, 3 vols., 510, 330, 398 p. John Murray, London.

7. The *Mineral Conchology* appeared in parts; assembled parts formed volumes as the work proceeded. The dated title pages of the volumes of the *Mineral Conchology* represent the starting date for the components of the particular volume. So, for example, the title page of the first volume is dated 1812, but comprises parts issued from 1812 to 1815, hence a year span is more accurate. For *Ammonites mantelli* J. Sowerby, 1814, a species in the first volume (volume numbering began with Volume II), one could reference the exact part:

Sowerby, J., 1814: *The Mineral Conchology of Great Britain, [Volume I]* (1812–1815), part 10 (1814), pp. 109–124. Benjamin Meredith, London.

A more economical citation, sufficient for most purposes, especially if multiple species were referenced, would simply cite the entire volume or volumes:

Sowerby, J., 1812–1815: *The Mineral Conchology of Great Britain, [Volume I]*, 234 p. Benjamin Meredith, London.

Dates of issue for the parts are given in Cleavelly, R. J. and

Wright, C. W., 1985, Authorship and dates of the Sowerby's Mineral Conchology of Great Britain. *Bulletin of Zoological Nomenclature*, vol. 42, p. 64–71. A full view of the article is available on the Biodiversity Heritage Library website.

8. Sherborn's *Where is the -- Collection?* (1940) is full of odd bits of information and a delightful but dated source. The same territory is now covered by the fields of history of collections and collection management.

9. See on this topic Price, J. H., 1982: Publication in parts: a background to the concept, efficacy and taxonomic complexity. *Archives of Natural History*, vol. 10, no. 3, p. 443–459, with references therein.

10. Scopoli, G. A., 1777, *Introductio ad Historiam Naturalem, Sistens Genera Lapidum, Plantarum et Animalium Hactenus Detecta, Characteribus Essentialibus Donata, in Tribus Divisa, subinde ad Leges Naturae*, Apud Wolfgangum Gerle, Pragae [or: Wolfgang Gerle, Prague].

11. e.g. the publication information for Müller's *Zoologiae Danicae Prodrromus* “Impensis Auctoris, Typis Hallageriis, Havniae” can be rendered as The author, Copenhagen. Mention of the printer, Hallager, is optional. The peripatetic naturalist Constantine Rafinesque often sponsored the publication of his own work. A commonly cited work of his, already referred to in the taxonomic example given in the introduction, is: Rafinesque, C. S., 1815: *Analyse de la Nature, ou Tableau de l'Univers et des Corps Organisés*, 224 p. Au dépens de l'Auteur, Palerme (Palermo).