North American Fauna Guides for Authors

North American Fauna encourages submission of original, high quality, English-language scientific monographs on an array of topics relating to North American vertebrates, invertebrates and plants. Appropriate treatments include descriptions of groups of taxa, ecosystems, or complex interactions among species and basic research on species life history, distribution, population dynamics and taxonomy and must be of sufficient detail to be considered among the authoritative publication on the topic or species covered. Between 1895 and 1991, 76 issues of *North American Fauna* were published in print. We are in the process of having every issue digitized and will make them available online in 2009. For additional information on monograph acceptance criteria, see the U.S. Fish and Wildlife Scientific Journals Home Page.

Manuscript Categories
Supplemental Material
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Re-publication and Dual Publication
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Policy Review
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Manuscript Categories

The journal publishes only *Monographs*, which typically contain more than 75 pages (including text, references, tables, and figures formatted in accordance with the journal's Format Conventions and are general guidelines only, not strict limits) and must be sufficiently complex and multifaceted to justify their length. Justification must be based on characteristics of the research, analyses, and results—not simply the size of the data set or length of the study. We also publish corrections (errata) of papers previously published in this journal.

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Supplemental Material

Data required to comply with our Data Archiving policy can be submitted as Supplemental Materials. Reference all Supplemental Materials files at least once in the manuscript and provide captions for each. Additional files with a detailed description of the variables in other data files are often useful.

Supplemental material is submitted along with the primary manuscript files and is peer reviewed. However, it is not copyedited or typeset and does not appear directly in the final published article. Instead, web links to the electronic files are given in the published paper, allowing the reader immediate online access to the material. The files will be available in exactly the same form as provided by the authors, so they should be publication-ready upon submission.

The use of supplemental material has two primary benefits. First, it enables authors to incorporate multimedia files, such as audio and video files. Second, it allows authors to disseminate comprehensive data sets, while still allowing for judicious use of precious journal space and, therefore, significant savings on publication costs.

Authors are encouraged to submit essential supporting data, tables, figures and multimedia files along with their manuscripts. During the online submission process, authors upload supplemental files along with the primary manuscript files and simply designate them as "supplemental material" using the dropdown option list provided. Authors should take special care to critically evaluate large data sets and appendices to determine which can be submitted as supplemental material.

Supplemental materials should fall into one of the following categories: Figures, Tables, Text, Audio, or Video. All supplemental material should be referred to in the manuscript with a leading capital S (e.g., Figure S4 for the fourth supplemental figure). During the online submission process, authors will provide titles (required) and captions (optional) for each file. Except in rare cases, files should be smaller than 10 MB in size because of the difficulties that some users will experience in loading or downloading larger files.

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Style Guides and Reference Literature

Our standard for word definition and spelling is *Webster's Third New International Dictionary*, as updated by the latest edition (currently 11th) of *Merriam Webster's Collegiate Dictionary*.

For taxonomic and vernacular names of North American fish species, we follow the American Fisheries Society's most recent edition of *Common and Scientific Names of Fishes from the United States, Canada, and Mexico* (Special Publication 29). The American Fisheries Society Fish Name Spellchecker is a useful tool for providing current common and scientific names. For other fish and invertebrate species, we encourage readers to follow the Society's companion publications: *World Fishes Important to North Americans* (Special Publication 21), and *Common and Scientific Names of Aquatic Invertebrates from the United States and Canada* (*Mollusks*, 2nd edition; *Crustaceans*, and *Cnidaria* and *Ctenophora* are currently available in the latter series).

For analyses of fish population dynamics, we prefer the notation as used by W. E. Ricker in his *Computation and Interpretation of Biological Statistics of Fish Populations* (Fisheries Research Board of Canada Bulletin 191, 1975). However, all such symbolism should be defined anew in each manuscript.

Our standards for chemical names are the current editions of the *Merck Index* (Merck & Co., Rahway, New Jersey) and *Enzyme Nomenclature* (Academic Press, San Diego, California). Geneticists should use the "Gene Nomenclature for Protein-Coding Loci in Fish" by J. B. Shaklee et al. (*Transactions of the American Fisheries Society* 119:2–15, 1990).

As general references for birds, use the most current edition of The American Ornithologists' Union Check-list (i.e., 1998) and periodic supplements published in Auk. For mammals, use either Whitaker (1996) *National Audubon Society Field Guide to North American Mammals* or Wilson and Reeder (2005) *Mammal Species of the World*, 3rd edition. There is no single reference for plants in North America; cite the most widely accepted regional flora reference (e.g., in northwestern states, Hitchcock and Cronquist [1973]).

As a general reference for amphibians and reptiles, follow Crother (2008; Herpetological Circular 37, Society for the Study of Amphibians and Reptiles) for species from North America.

As a general reference for insects, use the current Entomological Society of America (ESA) Common Names of Insects and Related Organisms online database (http://www.entsoc.org/Pubs/Common_Names/search.asp) or names approved by the ESA Common Names Committee.

As a general reference for bacteria, follow the International Committee on Systematics of Prokaryotes (formerly the International Committee on Systematic Bacteriology [ICSB]) (http://ijs.sgmjournals.org/cgi/reprint/30/1/225).

For categories not specifically addressed, follow the International Code of Zoological Nomenclature (ICZN) (http://www.iczn.org/) or International Code of Botanical Nomenclature (http://www.bgbm.org/iapt/nomenclature/code/SaintLouis/0000St.Luistitle.htm).

In addition, several other style manuals provide useful guidance for the preparation of manuscripts, especially the latest edition of *Scientific Style and Format, 7th edition* (Council of Science Editors, Chicago). The *Elements of Style* by Strunk and White (Macmillan, New York) continues to be an excellent guide to English usage. Accuracy and precision in scientific writing are just as important as accuracy and precision in scientific measurement. Lapses in either context invite criticism.

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Format Conventions

Whenever authors follow the style and format of the journal for which they write, they earn the appreciation of reviewers, editors, and typesetters and save themselves extra revisionary work. The following conventions apply to this journal:

Document and Multimedia Files

The following formats are acceptable:

1. Manuscript files in Word (doc), ASCII text (txt), or Rich text (rtf).
2. Figure and image files in JPEG (jpg), TIFF (tif), Adobe PDF (pdf), Excel (xls, one sheet only), or PowerPoint (ppt).
3. Table files in Excel (xls, one sheet only) or Word (doc).
4. Supplemental files in any of the preceding formats as well as video and audio files in MPEG (mpg), AVI (avi), QuickTime (mov), RealVideo (rv), AU (au), MP3 (mp3), WAV (wav), or RealAudio (ram).

See Manuscript Components section for additional details.

Word Processing

1. Use line spacing of at least 1.5 for all material, including title, abstract, footnotes, references, tables, and table and figure legends.
2. Number all pages sequentially, including title page, abstract, tables, and figure legends. Make sure that headers or footers will not be confused with the text.
3. Turn off all hyphenation and justification routines.
4. Use a standard 12-point font throughout (Times/Times New Roman; Courier/Courier New; Helvetica/Arial). Use boldface type only to indicate first-level (centered) and second-level (left justified) heads and vectors. Use an italic font and not underlining to indicate italics (third-level heads). Use an italic font only for scientific binomials (other Latin words and phrases are not italic), single-letter variables and constants in mathematics and statistics, and for occasional emphasis.
5. Avoid solid capital letters except for acronyms. Acronyms, abbreviations, numerals, and symbols should never begin a sentence or heading. Do not use abbreviations or acronyms if the term appears fewer than five times in either the abstract or the article body.
6. Do not use footnotes in text. Items to appear as footnotes on the first page (e.g., corresponding author information) should appear as plain text following the address section.
7. Delete all horizontal and vertical lines from tables except the horizontal lines above and below the column heads and across the bottom of the table. Table footnotes take lowercase, superscript letters in alphabetical order, and the sequence starts anew with each table. For more information regarding table footnotes, see the *Tables* section under Manuscript Components

Numbers and Symbols

1. Spell out single-digit numbers unless they are used with units of measure or are directly compared with a larger number: four anglers; 5 cm; 8 bluefish and 16 striped bass. Use numerals for decimal fractions and numbers of two or more digits: 0.4 times; 17 tanks; 326 fish, but spell out any number that begins a sentence. Use commas in numbers of 1,000 and greater; use 0 before decimal fractions (0.05).
2. Use the 24-hour clock for diel time and spell out “hours”: 1435 hours, not 2:35 p.m. Calendar dates can follow either of two formats: day month year (17 July 1990) or month day, year (July 17, 1990); select one style and use it consistently throughout the paper, including tables and figures.
3. Use metric units of measure without exception. Report physical measurements in accordance with the Système International d’Unités (SI). When one unit appears in a denominator, use a solidus (6 mg/L); use negative exponents and product dots (26.4 g·m3·h1) for compound denominators.
4. Indicate the national currency involved the first time a monetary value is given (e.g., Can $6, US $153).

5. Give fish ages in Arabic, not roman, numerals (age 3, not age III) and avoid plus (+) signs in the age notation. A fish is age 0 during its first year of life, which is assumed to end December 31 unless otherwise indicated. Define specialized age notations such as those used for anadromous species.
6. Some symbols are not unique (for example, N can mean Newton, nitrogen, normal, or north), so terms should be spelled out if there is any chance of ambiguity. All other symbols must be defined when they are introduced in each paper; for example, "1,000 × gravity (g)" at first use, and "1,000 g" thereafter. To facilitate communication with readers, avoid excessive use of abbreviations and acronyms.
7. All acronyms and abbreviations should be defined at first use in the text and should only be redefined in tables, figures and their captions. Tables, figures and their captions should stand alone and not require the reader to refer back to the text or other tables, except in rare cases.

Geography

1. U.S. (adj); United States (n)
2. UK (adj or n)
3. Spell out states: Kansas, North Carolina, Maryland
4. Do not use capitals for shortened names: "Chesapeake Bay" (on first mention); thereafter "the bay"
5. 43°15′09″N, 116°40′18″E (no spaces between numbers)

Nomenclature

1. Scientific names follow the first mention of a common name in the abstract and text, but not in the title. Omit taxonomic authority names. Spell out *Genus species* upon first mention; *G. species* thereafter, provided the meaning is clear and cannot be confused with another genus mentioned in the manuscript with the same first letter; e.g., we studied snow geese *Chen caerulescens* and Ross' geese *C. rossii*.
2. After indicating scientific names, use the common names in the article per the references in Useful Literature. Capitalize all portions of the common names of fish species and subspecies, but not those of hybrids and life history variants: Largemouth Bass and Lahontan Cutthroat Trout, but saugeye and steelhead. Always use full common names: "Largemouth Bass," not "Bass,". However, if the name is long or frequently used, and cannot be confused with other species, it is acceptable to use the full name at first mention, then a shortened name thereafter if defined; e.g., "Westslope Cutthroat Trout (heareafter Trout)." Except for fishes, do not capitalize common names of species except words that are proper names; e.g., Cooper's hawk Accipiter cooperii.
3. After indicating scientific names, use the common names in the article per the references in Useful Literature. Always use full common names: "largemouth bass," not "bass," "Colorado potato beetle," not "CPB." However, if the name is long or frequently used, then use the full name only at first occurrence in each paragraph; e.g., "westslope cutthroat trout," then "trout." Do not capitalize common names of species except words that are proper names; e.g., Cooper's hawk *Accipiter cooperii*.
4. If there is no common name (e.g., with some parasites), use the scientific name throughout: *Myxobolus cerebralis*. Likewise, if there is no scientific name (e.g., with some viruses or cell lines), then use the common name or abbreviation throughout: infectious hematopoietic necrosis virus (IHNV), Chinook salmon embryo (CHSE-214) cells.
5. Omit scientific names of domesticated animals or cultivated plants unless a plant is endemic or widely escaped from cultivation or is a variety that is not described adequately by its common name.
6. For taxonomic and systematics papers, you may use the scientific names in the titles and throughout.
7. Avoid using subspecies names unless essential. Use "sp." (singular; not italicized) or "spp." (plural) to indicate that the identity of species within a genus was unknown. For example, "The field was bordered by willow (*Salix* sp.) and we trapped several species of mice (*Peromyscus* spp.)." Use the most widely accepted nomenclature where disagreement occurs.
8. For two common food items for fish, do not identify beyond the genus level: daphnia *Daphnia* spp., brine shrimp *Artemia* spp. Use either the common or scientific name, but be consistent within the paper.
9. For new species, include the scientific name in the title and use throughout. For new fish species, also provide documentation of the name for the chair of the Committee on Names of Fishes.
10. For fish species covered by *World Fishes Important to North Americans* you may indicate alternate common and scientific names: whitefish *Coregonus lavaretus* (known as powan in North America).
11. For tilapia species use either the Thys or Trewavas system, but be consistent within the paper.

12. Some fish species have more than one common name because of differences in life history. If you discuss only one form in the paper, present it in the usual way: steelhead *Oncorhynchus mykiss*. If you discuss both forms, presentation depends on which is mentioned first: "rainbow trout *Oncorhynchus mykiss*" then "steelhead (anadromous rainbow trout)"; "steelhead *Oncorhynchus mykiss* (anadromous rainbow trout)" then "rainbow trout."
13. Strains are variants maintained by culture: Seneca lake trout *Salvelinus namaycush*. If the strain name does not indicate the species in question, clarify the information in the title, abstract, and text; e.g., a title would refer to "koi carp" and the abstract and text would indicate the species with a phrase such as "koi, a variant of common carp *Cyprinus carpio*." Afterward just "koi" may be used.
14. Stocks are populations managed as a unit and usually have geographic names: Chesapeake striped bass *Morone saxatilis*.
15. Runs consist of members of a species that are migrating to spawn in a particular season: fall (or fall-run) chum salmon *Oncorhynchus keta*.
16. Present names of hybrids in the abstract and text; include gender of parents if necessary: sunshine bass (female white bass *Morone chrysops* × male striped bass *M.* saxatilis). You may use common names of hybrids in *Names of Fishes* without indicating the parent species.
17. Form most fish name plurals by adding *s* or *es*, with stem changes as required; e.g., bluegills, guppies, ciscoes, walleyes, alewives; but steelhead, yellowtail, trout, bass. This is not a complete list, so refer to the dictionary.
18. In the following cases, more than one plural is acceptable: Dolly Varden(s), drum(s), kokanee(s), ruffe(s), sculpin(s), sturgeon(s), tilapia(s). Make usage consistent within an article.

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Manuscript Components

Manuscripts should typically be assembled in this order: (1) Title and Author Information (on one page); (2) Abstract (on the second page); (3) Introduction (starts third page), Study Site (if needed), Methods, Results, Discussion, Supplemental Material captions (if needed), Acknowledgments (all run-on in successive pages); (4) References, all text footnotes; (5) Appendixes, Tables with their Captions, Figure Captions (start each on a new page); (6) Figures in separate file(s); and (7) Supplemental Material files, each in a separate file (note supplemental material captions are included above).

Our policy allows for reasonable flexibility; deviations in format, in addition to those specified in the component descriptions below, are allowed when a manuscript benefits from them. For instance, the Results and Discussion sections may be combined for some manuscripts, Results may not be necessary for others, such as those that primarily report on methodology, and Review papers will often have unique formats depending on the topic being reviewed. Describe and justify deviations in format in a cover letter.

Headers.— Indicate levels of heads as follows:

Number One Head

Bold, centered, cap and lowercase (title capitalization).

Number two head

Bold, flush left, capitalize only first word and proper nouns (sentence capitalization).

Number three head.

Lightface, italic, ends with period; text runs in. Capitalization as for number two heads.

Title.—The title should accurately reflect a paper's content. The best titles—those that attract a reader's attention and interest—are usually short (a dozen words or less; there is a 15-word limit) and crisp. For fishes, Latin binomials covered in the American Fisheries Society's Common and Scientific Names of Fishes from the United

States, Canada, and Mexico should not be included in the title. Authors of scientific taxa also should be omitted from the title except when their names are absolutely needed for clarification.

Author information.—Use an asterisk to designate corresponding author, and follow this format to indicate affiliations and present addresses:

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Abstract.— The abstract should be a single paragraph of less than 500 words that summarizes the results and conclusions in concise and declarative prose. Abstracts should neither list the contents (this is presented; that is discussed) nor review the methods. Literature citations, footnotes, abbreviations and acronyms (unless used more than five times) are not allowed in abstracts. Abstracts obviate the need for formal text summaries. Because they are widely circulated by abstracting services, abstracts have much larger readerships than do full papers, and the abstract should represent the text fairly and accurately. Abstracts are optional for Issues and Perspectives.

Introduction.—An introduction should set the context for the work to be reported and establish the purpose and importance of that work. It also should demonstrate the authors' awareness of the most pertinent literature, including review articles. However, a comprehensive literature survey may be deferred to the discussion section if this is more appropriate.

Study site.—A report of field studies may need a detailed site description, which can be given in a separate section of the manuscript. Limit the information to that needed for an understanding and interpretation of the results. If only a few words are needed to locate and describe the study site, include them in the introduction or methods. Maps are unnecessary if they only give information contained in standard atlases.

Methods.—Methodologies can be tedious to read, but it is better to be overly explicit than to omit details needed by a reader to evaluate the data or repeat the study. Previously published descriptions of equipment and procedures may be cited by reference, unless they are in theses, dissertations, agency reports, or other sources of limited availability. Clarity of expression is as important in the methods section as it is elsewhere in the paper. If the experimental protocol and equipment are particularly complex, they can be displayed in a table or figure. Similarly, the numerous variables needed for some mathematical developments may be listed and defined in a table. Long papers that report diverse research may benefit if methodological details are split up and regrouped together with the respective results. This can help the reader to associate the data with the respective procedures. In such cases, a formal methods section can be restricted to matters common to all or most of the experiments: sources of fish, equipment, chemical analyses, or statistical tests, for example.

Results.— Results traditionally follow methods, and need not be explicitly labeled as such if a more descriptive subheading is available. If results are presented in tables or figures, it is pointless to describe them exhaustively in

prose as well; the text can be devoted to summary statements and analyses. Display data in tables if precision is important, in figures if trends are paramount. Although long lists of raw data are undesirable in the Results (see however Supplemental Material section above), basic data should not be refined to the degree that a reader can neither verify the analyses nor use the information for other purposes. Authors should take special care to critically evaluate large data sets and appendices to determine which can be submitted as Supplemental Material. Statistical testing is an important part of most analyses, but it should not obscure biological insight. Most importantly, the statistical designs and models used should be appropriate for the study. Although most scientific decisions are based on a statistical probability of error of 5% or less, we have no requirements regarding significance levels. Decision probabilities should balance the sacrifice of biological information against the consequences of being wrong.

Discussion.—The value of a paper can be greatly enhanced by a good discussion. This is the place to relate what has been learned to what is known, to create new syntheses, to search for generalities, to establish basic principles. The weakest discussions are brief literature surveys appended to mechanical restatements of the results; these usually should be integrated with the results in a single section of the paper. The strongest discussions are true scientific essays that materially advance understanding of their respective fields. Most discussions fall between these extremes because they are founded on limited research objectives, but a thoughtful and scholarly discussion can transform a pedestrian paper into a remarkable one. The quality of a discussion is inversely related to redundancy, wordiness, and unfounded speculation. It is better not to make a point than to burden it with a paragraph of qualifications. The work of others, when cited, should be attributed carefully and accurately. Transitions from evidence to intuition need explicit identifications.

Acknowledgments.— Place grant and contribution numbers and organizations in the acknowledgments. Acknowledge only people and institutions that contributed directly to the research or to the manuscript's quality. Consider acknowledging the anonymous reviewers and Subject Editor for revisions where you believe they made a positive contribution to the quality of the manuscript (e.g., "Two anonymous reviewers and the Subject Editor provided comments that improved an earlier version of this manuscript"). The standard disclaimer required for Service authors (i.e., "The findings and conclusions in this article are those of the author(s) and do not necessarily represent the views of the U.S. Fish and Wildlife Service."; see Policy Review section below) will be automatically included for each paper published and is therefore NOT required in this section.

References.— Select references with care. Minimize references to gray literature (e.g., progress reports, unpublished papers, abstracts of papers given at conferences, and manuscripts in preparation or under review) except to acknowledge intellectual debt in the Acknowledgments section. Similarly, theses, dissertations, final reports, and institutional documents of limited or no circulation often contain useful data and may be cited; however, such sources rarely have been subjected to external review and should be cited sparingly. Authors should endeavor provide internet addresses for all difficult to find references and provide the month and year accessed parenthetically after the internet address [e.g., (September 2010)]. Authors may be requested to provide unpublished reports if they are required by the referees and should be prepared to provide an electronic version of any reference upon request by readers or editors, unless precluded by copyright laws, in a timely manner. Reliance on unpublished reports reduces an author's credibility. If unpublished or personal communication must be cited do so parenthetically in the text, giving initials, surname and affiliation (not address) of the source; for example, (A. B. Jones, Institute for Aquatics, personal communication). Obtain written permissions from the appropriate people to cite unpublished data and personal communications, and be prepared to show such letters to the editor. See the Current Issue for examples.

Follow the name-year system for literature citations; they may take either of two forms, depending on the context. Note the punctuation in the following examples:

1. Johnson (1995), Jones and Smith (1996, 1998), Rice et al. (1997), and Berger (in press) found walleyes in Lake Pollock.
2. Walleyes occur in Lake Pollock (Johnson 1995; Jones and Smith 1996, 1998; Rice et al. 1997; Berger, in press).

Cite both of two authors, but for three or more give only the first author plus "et al." Arrange multiple citations chronologically (oldest first) in a text sentence.

If their names are long, institutional authors may be cited as abbreviations in the text, but such abbreviations must be defined in the references. For example, "APHA et al. (1992)" cited in the text appears in the reference list as "[APHA] American Public Health Association, American Water Works Association, and Water Environment Federation. 1992."

The reference list will generally follow Scientific Style and Format, 7th edition. Please submit your references in a style that approximates that as much as possible to facilitate copyediting. In the reference list, alphabetize entries first by the surnames of first authors or by the first word or abbreviation of corporate authors, then by the initials of first authors with the same surname, and finally by the surnames of coauthors. List multiple papers by the same author(s) chronologically by year of publication. Distinguish papers by the same author(s) in the same year by lowercase letters after the year (1998a, 1998b). Substitute "in press" for the year if a paper has been accepted for publication but page numbers are not yet available.

Completely spell out all bibliographic information, including serial titles. We allow only these abbreviations:

1. First and middle initials of authors and editors;
2. Abbreviations that occur in the titles of articles and books and in the names of authors;
3. Ordinal numbers (2nd edition, 4th congress) other than those spelled out in titles.

Note also that only the first words and proper nouns of English titles are capitalized. In German titles, all nouns are capitalized. Retain italics when they are used in the titles cited.

Examples of common bibliographic formats follow.

(1) Articles in journals and other periodicals listed in *BIOSIS Serial Sources* (BIOSIS, Philadelphia): Author(s). year. Article title. Journal title volume number (issue number only if each starts with page 1): inclusive pages.

However, see the exception for AFS book series in (3) below. Use this format for book-length publications such as monographs and symposia as well.

Crawshaw LI, Lemons DE, Palmer M, Messing JM. 1982. Behavioral and metabolic aspects of low-temperature dormancy in the brown bullhead, Ictalurus nebulosus. Journal of Comparative Physiology B 148:41–47.

Hochachka PW. 1990. Scope for survival: a conceptual "mirror" to Fry's scope for activity. Transactions of the American Fisheries Society 119:622–628.

Kennedy VS. 1990. Anticipated effects of climate change on estuarine and coastal fisheries. Fisheries 15(6):16–24.

Kent ML, Traxler GS, Kieser D, Richard J, Dawe SC, Shaw RW, Prosperi-Porta G, Ketcheson J, Evelyn TPT. 1998. Survey of salmonid pathogens in ocean-caught fishes in British Columbia, Canada. Journal of Aquatic Animal Health 10:211–219.

Petersen MR, Weir DN, Dick MH. 1991. Birds of the Kilbuck and Ahklun Mountain Region, Alaska. North American Fauna. 76:1–158. doi: 10.3996/nafa.76.0001

(2) Book: Author(s) or editor (s). year. Title. edition (other than 1st) or Volume (if part of a series). City, State, Province, or Country (only if needed to locate city): Publisher. Other identifying information. Omit the number of pages.

[APHA] American Public Health Association, American Water Works Association, and Water Environment Federation. 1992. Standard methods for the examination of water and wastewater. 18th edition. Washington, D.C.: APHA.

Hoar WS, Randall DJ, editors. 1988. Fish physiology. Volume 11, part B. New York: Academic Press.
Rheinheimer, G. 1985. Aquatic microbiology. 3rd edition. New York: Wiley.

(3) Article in a book (including those in the AFS book series—Special Publications, Symposia, and Monographs): Author(s). year. Article title. Inclusive pages in editor(s). Book title. City, State, Province, or Country (only if needed to locate city): Publisher. Other identifying information.

Identify conference proceedings by year of publication, not by the year of the meeting, and give the publisher's name and location (i.e., where the proceedings may be obtained), not the location of the meeting.

Adams SM, Breck JE. 1990. Bioenergetics. Pages 389–415 in Schreck CB, Moyle PB, editors. Methods for fish biology. Bethesda, Maryland: American Fisheries Society.

Campton DE. 1995. Genetic effects of hatchery fish on wild populations of Pacific salmon and steelhead: what do we really know? Pages 337–353 in Schramm HL Jr, Piper RG, editors. Uses and effects of cultured fishes in aquatic ecosystems. Bethesda, Maryland: American Fisheries Society. Symposium 15.

Livingstone AC, Rabeni CF. 1991. Food-habitat relations of underyearling smallmouth bass in an Ozark stream. Pages 76–83 in Jackson DC, editor. The first international smallmouth bass symposium. Bethesda, Maryland: American Fisheries Society.

(4) Thesis or dissertation: Author. year. Title. Master's thesis or Doctoral dissertation. City, State, Province, or Country (only if needed to locate city): University.

Omit state after city if included in the university name.

Chitwood JB. 1976. The effects of threadfin shad as a forage species for largemouth bass in combination with bluegill, redear, and other forage species. Master's thesis. Auburn, Alabama: Auburn University.
Hartman KJ. 1993. Striped bass, bluefish, and weakfish in the Chesapeake Bay: energetics, trophic linkages, and bioenergetics model applications. Doctoral dissertation. College Park: University of Maryland.

(5) Government publication: Author(s) or agency. year. Title. City, State, Province, or Country (only if needed to locate city): Agency. Type and number of publication.

Omit state or province after city if included in the agency name.

[EPA] U.S. Environmental Protection Agency. 1986. Quality criteria for water. Washington, D.C.: EPA. Report 440/5-86-001.

Gimbarzevsky P. 1988. Mass wasting on the Queen Charlotte Islands: a regional inventory. Victoria: British Columbia Ministry of Forests and Lands. Land Management Report 29.

(6) Contract report: Author(s). year. Title. Organization that issued the report (if different from the author) to Organization that received the report, Receiver's city, state, province, or country (only if needed to locate city).
Smith AB. 1986. Turbine-induced fish mortality at Highrise Dam, 1985. Report of Robertson Consultants to Prairie Utilities, Jonesville, Alberta.

(7) Internet: Author(s) or agency. year. Title. Publisher or Publication. [volume:page numbers]. Available: URL (month and year accessed). [DOI:]

Items in brackets are optional.

Baldwin NA, Saalfield RW, Dochoda MR, Buettner HJ, Eshenroder RL. 2000. Commercial fish production in the Great Lakes 1867–1996. Great Lakes Fishery Commission. Available: www.glfc.org/databases/commercial/commerc.php (September 2000).

Villeneuve DL, Wang RL, Bencic DC, Biales AD, Martinovic D, Lazorchak JM, Toth G, Ankley GT. 2009. Altered gene expression in the brain and ovaries of zebrafish (Danio rerio) exposed to the aromatase inhibitor fadrozole: microarray analysis and hypothesis generation. Environmental Toxicology and Chemistry 28:1767–1782. Available: www.setacjournals.org/perlserv/?request=get-abstract&doi=10.1897%2F08-653.1&ct=1 (October 2009). DOI: 10.1897/08-653.1

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