Citation

For BS50, use the Author-Year format for citing references. In the text of your work, the citation is marked with the author and year in parenthesis. The Works Cited at the end of your paper is ordered alphabetically.

This .pdf contains important guidelines for citation. The first is a chapter from the book *A Short Guide to Writing about Biology*, by Jan A. Pechenik (5th ed., Pearson Education, 2004), which explains the Author-Year style and provides examples of the citation format for the types of materials most commonly used in Biology (books, journal articles, etc.) The second part provides more specific information on citing sources from the internet. For more information on how to cite, consult one of the references below. You may notice, particularly by reading *Writing with Sources*, that there are many different formats for citation. Biologists most often use the style presented in this document. In *Writing with Sources*, a variation of it is referred to as the CBE style (a format designed by the Council of Biology Editors). It is most important to remember that whichever format you use to cite, that you apply it consistently throughout your work.

References:


CITING SOURCES AND LISTING REFERENCES

As described briefly in Chapter 1, all statements of fact and opinion require support to be convincing to the thoughtful, critical reader. The firmer the statement, and the more important it is to your argument, the greater the need for support. In laboratory and other research reports, term papers, and theses, factual statements are supported by reference to the source (or sources) of the facts presented. Therefore, in a separate section at the end of your presentation, you must list the books, research articles, and Web sites referred to so that they can be located by the interested (or skeptical) reader.

CITING SOURCES

Here are a few general rules to follow when citing sources to back up factual statements. These rules apply to term papers, theses, and research reports, and to all parts of the research report:

1. **Don't footnote: cite by author and year of publication.** In most papers published in biological journals, references are cited directly in the text, by author and year of publication, as in the following example:

   A variety of organic molecules are commonly used to maintain or adjust the osmotic concentration of intracellular fluids (Hochachka and Somero, 1984; Schmidt-Nielsen, 1990).

   When more than 2 authors have collaborated on a single publication, a shortcut is standard practice:

   A mutation is defined as any change occurring in the nitrogenous base sequence of DNA (Tortora et al., 1982).

   The *et al.* is an abbreviation for *et al.*, meaning "and others." The words are underlined or italicized, even when abbreviated, because they are in a foreign language, Latin; underlining tells a printer to set the designated words or letters in italics. Note that in each of the examples given, the period follows the closing parenthesis, since the reference, including the publication date, is part of the sentence. Where appropriate, you may incorporate the authors' names directly into a sentence:

   Kim (1976) demonstrated that magnetic fields established by direct current can alter the rates of enzyme-mediated reactions in cell-free systems.

   or:

   The ability of magnetic fields established by direct current to alter the activity of certain liver enzymes was first demonstrated by Kim (1976).

   If you cite 2 papers published in a single year by the same author, use letters to distinguish between them: (Asmodeus and Li, 1998 a, b) or (Asmodeus et al., 1999 a, b).

   Try to make the relevance of the cited reference clear to the reader. For example, rather than writing:

   Temperature tolerances have been determined for gastropods, bivalves, annelids, and insects (Merz, 1988; Heibert Burch, 1998; Merz and Heibert Burch, 1993 a, b).

   it would be clearer to write:

   Temperature tolerances have been determined for gastropods (Merz, 1988), bivalves and annelids (Heibert Burch, 1998), and insects (Merz and Heibert Burch, 1993 a, b).

   You can cite your laboratory manual by its author (for example, Professor S. Heibert Burch, 1999) or as follows:

   Preparation of buffers and other solutions is described elsewhere (Biology 1 Laboratory Manual, Swarthmore College, 1999).
Instead, write:

The phenomenon of invertebrate bioluminescence has been carefully reviewed by Nicol (1967).

Again, the period follows the parenthesis.

3. **Cite only those sources you have actually read and would feel confident discussing with your instructor.** Don’t list references simply to add bulk to this section of your report; your instructor is perfectly justified in expecting you to be able to discuss any material you cite. Listing a few references you have thoughtfully incorporated into your paper should do more for your grade than any attempt to create the illusion that you have read everything in the library.

You may occasionally have to cite a source that you have not actually read. For example, results reported by Hendler (1999) may be cited in a book or article written by Dufus (2003), and you have read only the work by Dufus. Your citation should then read, “(Hendler, 1999, as cited by Dufus, 2003).” Let Dufus take the blame if he or she has misinterpreted something. In the Literature Cited section of your report, you would include both sources.

4. **Avoid citation overkill.** When discussing a series of facts from a single source or group of sources, it is not necessary to cite the same source(s) in every sentence. There are many ways of informing the reader that a series of sentences is based on a single source of information, as in the following example:

Hochachka and Somero (1984) discuss the physiological adaptations in diving mammals in considerable detail. In particular they note that diving Weddell seals exhibit a pronounced decline in both rate of metabolism and ATP turnover rate. In one experiment, ATP turnover rates were reduced by as much as 50% during a 20-minute dive.

**SUMMARY OF CITATION FORMAT RULES**

- Use the author–year format for citing references unless told otherwise by your instructor, or unless you are submitting a manuscript to a journal using a different (number-citation) format.
- Cite authors only by their last names, unless you include in your paper citations by 2 authors sharing a last name, e.g., Bilbo Baggins and Frodo Baggins. In such a case, distinguish between the
2 authors by using the first letter of the first name; e.g., B. Bag-
gins, 1946.
- Cite work by 2 authors using the last names of both (e.g., Fraga
  and Iyengar, 2000).
- Cite work by 3 or more authors using only the last name of the
  first author, followed by et al. (meaning, "and others").
- If you must cite a reference that you have not read, do it as fol-
sows: (Tankersly, 1995, as cited by Rittschof, 1999).
- Cite information provided directly by your instructor (orally or
  through e-mail) as follows: (J. Bolker, personal communication,

PREPARING THE LITERATURE CITED SECTION

Whenever you cite sources to support statements, you must provide a
separate Literature Cited section, giving the full citations for each source
cited. This presentation enables the interested reader, including, per-
haps, you, at a later date, to locate and examine the basis for factual
statements made in your report. It occasionally happens that a reference is
used incorrectly; your interpretation or recollection of what was said in a
textbook, lecture, or journal article may be wrong. By giving the source of
your information, the reader can more easily recognize such errors. If the
reader is your instructor, this list of references may provide an opportu-
nity for him or her to correct any misconceptions you may have acquired.
If you fail to provide the source of your information, your instructor will
have more difficulty in determining where you went wrong. Proper refer-
cencing is even more crucial in scientific publications. Misstatements of
fact are readily propagated in the literature by others; the Literature
Cited section of a report enables a reader to verify all factual statements
made, and the careful scientist consults the listed references before ac-
cepting statements made by other authors.

Listing the References

Include only those references that you have actually read (see p. 69
for one exception to this rule) and that you specifically mention in
your report or paper, and include all of the references that you cite.
Unless you are told otherwise by your instructor, list references in al-
phabetical order according to the last name of the first author of each publi-
cation. If you cite several papers written by the same author, list them
chronologically. If one author has published 2 papers in the same year,
list them as, for example, Hentschel, B. 1995a, and Hentschel, B. 1995b.

Each listing must include the names of all authors, the year of
publication, and the full title of the paper, article, or book.

In addition, when citing books, you must report the publisher, the
place of publication, and the pages referred to, or the total number of
pages in the book.

When citing journal articles, you must include the name of the
journal, the volume number of the journal, and the page numbers of the
article consulted.

When citing Internet sources, you must include the date that the
material was posted (or the most recent revision date), the date you ac-
cessed the material, and the full URL for the Web site.

Unfortunately, there is no single acceptable format for preparing this
section of a report; formats differ from journal to journal, despite the best
efforts of the Council of Science Editors (CSE). A few rules, however, do
apply to most journals:

Spell out only the last names of authors; initials are used for first and
middle names.

Include the names of all authors, even though the names of only one
or at most 2 authors (for example, Woodin et al., 1995; Svane
and Havenhand, 1994) are cited in the text of the report.

Latin names, including species names, are italicized, or underlined
to indicate italics.

Titles of journal articles are not enclosed within quotation marks.

Journal names are usually abbreviated. In particular, the word
Journal is abbreviated as J., and words ending in -ology are
usually abbreviated as -ol. The Journal of Zoology thus becomes
J. Zool. Do not abbreviate the names of journals whose titles are
single words (for example, Science or Evolution). Acceptable
abbreviations for the titles of journals can usually be found
within the journals themselves.

The most important rule in preparing the Literature Cited section is
to provide all the information required and to be consistent in the
manner in which you present it. When preparing a paper for publica-
tion, you should religiously follow the format used by the journal to
which your entry will be submitted.
LISTING BOOK REFERENCES

LISTING AN ARTICLE FROM A BOOK

LISTING A LABORATORY MANUAL OR HANDOUT

Bernheim, H. 2002. Principles of physiology, using insects as models. II. Excretion of organic compounds by Malpighian tubules. Biology 50 Laboratory Handout. Tufts University, Medford, MA.

LISTING ITEMS FROM THE WORLD WIDE WEB
As explained in Chapter 2 (pp. 43, 46–47), information posted on Web sites is ephemeral and has usually not been peer-reviewed; avoid using Web pages as sources of information unless you are fully confident of the accuracy of the material presented. In general, this means relying only on peer-reviewed electronic journals or Web sites maintained by recognized scientific authorities, such as those associated with major museums and research institutions, or government organizations such as the U.S. Department of Agriculture (USDA), the National Oceanic and Atmospheric Administration (NOAA), and the World Health Organization (WHO).


If you know the author of the information, you should cite the author’s name rather than the institutional name. For the latest information on citing Web sources, see http://www.councilscienceeditors.org/pubs_citing_internet.shtml and www.bedfordstmartins.com/online/cite8.html

SAMPLE LITERATURE CITED SECTION
A sample Literature Cited section follows, with items arranged alphabetically and chronologically. Your instructor may specify a different format for this section of your report, so check first if you are uncertain.
Literature Cited

cytochemical and biochemical index of stress in *Mytilus edulis* L.

16–23. College of Wooster, OH.

Eyster, L. S., Morse, M. P. 1984. Early shell formation during molluscan
embryogenesis, with new studies on the surf clam, *Spisula


Fox, D. S., Heitman, J. 2002. Good fungi gone bad: the corruption of
[accessed 1 Jan. 2003]

Haas, W., Haberl, B. 1997. Host recognition by trematode miracidia and
cercariae. In: *Advances in Trematode Biology* (B. Fried and T. L.

Havenhand, J. H. 1993. Egg to juvenile period, generation time, and the

to mode of development in marine prosobranch gastropods.

Science of Biology*, 6th ed. Sinauer Assoc., Sunderland, MA,
pp. 374–379.

Quinn, G. P., Keough, M. J. 2002. *Experimental design and data analysis

Documenting Materials from the Internet:

To document a file available for viewing and downloading via the internet, provide the following information:

- Author's name (if known)
- Date of publication or last revision
- Title of document
- Title of complete work (if relevant)
- URL, in angle brackets
- Date of access

**Personal site**

**Professional site**

**Book**
An online book may be the electronic text of part of all of a printed book, or a book-length document available only on the Internet (e.g., a work of hyperfiction).

**Article in an electronic journal (ejournal)**

**Article in an electronic magazine (ezine)**


**Newspaper Article**

For more information on how to reference other types of electronic materials, see http://www.bedfordstmartins.com/online/cite8.html