

#### **ECOLOGY STYLE: WHAT IS IT?**

"Ecology Style" refers to the citation format of the journal *Ecology* (published by the Ecological Society of America). It is the preferred style of the Environmental Science & Resource Management Program. This handout summarizes citation formatting for ESRM courses.

#### **ECOLOGY STYLE: GENERAL FORMAT**

This handout provides examples for the Ecology Style. For more details, visit <a href="https://esajournals.onlinelibrary.wiley.com/journal/19399170">https://esajournals.onlinelibrary.wiley.com/journal/19399170</a>.

## **Manuscript Formatting**

**Ecological Society of America** recommends the following for manuscript formatting:

- Manuscript and literature cited should be double-spaced in 12-point Times New Roman font.
- Manuscript organization: title page, abstract, key words, text, acknowledgments, literature cited, tables (one table per page), figure legends (on separate page preceding the first figure), figures (one figure per page; label each figure, i.e. Figure 1, Figure 2 etc.), and lastly any Appendices.
- Number all pages (including tables and figures), starting with the title page.
- Title should be "concise, informative, tell what the paper is about and what it found."
- Key words list up to 12 key words; "Each key word should be useful as an entry point for a literature search."
- Body should be organized with headings labeled Introduction, Methods, Results, Discussion, and Conclusion (if needed). Methods should provide "sufficient information" to replicate the work. It would include "clear descriptions of your experimental design, sampling procedures, and statistical procedures" (Ecology). Under major sections, there may be subsections with descriptive subheadings.
- Running head: Running heads should be no longer than 40 letters and spaces (at the top of the title page).
- Figure sizes: Figures should not be more than 6 inches wide and 7 inches high. Font size of the x- and y-axis numbers should be slightly smaller than the axis label (Helvetica is preferred); for symbols and lines, avoid very small sizes and line thicknesses.
- Use boldface type only if required for journal style.

#### **Literature Cited**

**Literature Cited** is a list of references that follows the paper in a separate section with the heading "Literature Cited." Literature Cited should be listed in alphabetical order, using hanging indentation (indent every line but the first). Italicize genus and species names. If you have two citations by the same author, put it in chronological order. List the names of all authors in the literature cited.

Do not list abstracts and unpublished material in the Literature Cited. These materials may be listed in the text as personal observations, personal communications (authority cited needs to agree to the use of his or her name), public communications (reference should include date printed or accessed, title of the source, and basic access information such as URL)

If authors are included in the text, follow the authors with the year of publication.

### **Internal Citations**

**Internal citations** are within the body of the essay.

<u>Single author</u>: no comma between author and year (Barrow 2000).
<u>Citations of multiple authors</u>: separate citations by comma (Schoustra et al. 2005, Leu and Murray 2006, Dettman et al. 2007, 2008)

<u>Citations of a source with three or more authors</u>: use only the first author with "et al." (Boddy et al. 2014)

No page references are included in internal citations.

#### **ECOLOGY STYLE: GENERAL FORMAT FOR LITERATURE CITED PAGE**

### **Book and Edited Book**

Last Name, First Name Initial. Second Initial. Year of Publication. *Italicize book title: capitalize only the first word (no capitalization after a colon)*. Publisher's name, City, State, Country.

Futuyma, D. J. 2009. Evolution. Second edition. Sinauer Associates, Sunderland, Massachusetts, USA.

(Futuyma 2009)

Drake, J.A., F. DiCastri, and R.H. Groves. 1989. *Biological invasions: a global perspective*. Wiley, New York, New York, USA.

(Drake et al. 1989)

# **Chapter in a Book**

Last Name, First Name Initial. Second Initial. Year of Publication. If applicable provide title of chapter in book: Capitalize only first word or proper nouns. "Pages" number to number in (*italicize*) First initial. Second initial. Last Name, editor(s). *Italicized title of book title*. Publisher's name, City, State, Country.

Abrams, P.A., B.A. Menge, and G.G. Mittelbach. 1995. The role of indirect effects in food webs. Pages

371-395 *in* G. Polis and K.O. Winemiller, editors. *Food webs: integration of patters and dynamics*. Chapman and Hall, New York, New York, USA.

(Abrams et al. 1995)

## **Article in a Print Journal**

Last Name, First Initial. Second Initial. Year of publication. Title of article. *Italicized Title of Journal*. **Volume number in bold**: page or pages with no space between colon.

- Do not include information about the databases you used to access the article (Lit Cit).
- Include as many initials for each author as you find on the first page of the article (Lit Cit).
- Allison, S. D., C. A. Hanson, and K. K. Treseder. 2007. Nitrogen fertilization reduces diversity and alters community structure of active fungi in boreal ecosystems. *Soil Biology and Biochemistry* **39**:1878–1887.

(Allison et al. 2007)

Smith, M. L., J. N. Bruhn, and J. B. Anderson. 1992. The fungus *Armillaria bulbosa* is among the largest and oldest living organisms. *Nature* **356**:428–431.

(Smith et al. 1992)

# **Article in an Online Journal**

Last Name, First Initial. Second Initial. Year of publication. Title of article. *Italicized Title of Journal.* **Volume number in bold**: page or pages with no space between colon. Follow volume number with web link address. No period after web link for online journal, but include period after doi or http address.

Open Access Online Journal—Peer reviewed

London, J. M., J. M. Ver Hoef, S. J. Jeffries, M. M. Lance, and P. L. Boveng. 2012. Haul-out behavior of harbor seals (*Phoca vitulina*) in Hood Canal, Washington. *PLoS ONE* **7**:e38180.

(London et al. 2012)

Open Access Database—Peer reviewed

Hefley, T. J., K. M. Broms, B. M. Brost, F. E. Buderman, S. L. Kay, H. R. Scharf, J. R. Tipton, P. J. Williams, and M. B. Hooten. In press. The basis function approach for modeling autocorrelation in ecological data. ArXiv:1606.05658.

(Hefley et al. in press)

Online Journal—Peer reviewed

D. B. Dunson and A. Rodríguez. 2011. Nonparametric Bayesian models through probit stick-breaking processes. *Bayesian Analysis (Online)* **6**. https://doi.org/10.1214/11-BA605

(Dunson and Rodriguez 2011)

Garcia, N.S., J. A. Bonachela, and A. C. Martiny. 2016. Interactions between growth-dependent changes in cell size, nutrient supply and cellular elemental stoichiometry of marine *Synechococcus*. *ISME Journal*. https://doi.org/10.1038/ismej.2016.50

(Garcia et al. 2016)

#### **Government Document**

- Last name, First initial. Second initial. Year of Publication. Document title. Sponsoring Agency or Series Name (no italics). Publication number. Publisher, city, state, country.
- Reed, D. C., and S. C. Schroeder. 2006. An experimental investigation of the use of artificial reefs to mitigate the loss of giant kelp forest habitat. California Sea Grant Program. Publication No. T-058. University of California, San Diego, California, USA.

(Reed and Schroeder 2006)

Maschinski, J., H. D. Hammond, and L. Holter, editors. 1997. Southwestern rare and endangered plants: proceedings of the second conference. General Technical Report RM-GTR-283. U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment State, Fort Collins, Colorado, USA.

(Hammond and Holter 1997)

## Other Resources: Document/Report from Website

Author of website. Year. *Title italicized*. Publisher, city location, country location. Website address. (Include date you accessed the web material in parenthesis if required for your assignment). No period after web address.

R Development Core Team. 2015. *R: a language and environment for statistical computing*. R Foundation for Statistical Computing, Vienna, Austria. <a href="http://www.R-project.org/">http://www.R-project.org/</a> (1/20/2016)

(R Development Core Team 2015)

Service Argos. 2015. *Argos user's manual*. CLS (Collecte Localization Satelites), Ramonville Saint-Agne, France. <a href="http://www.argos-system.org">http://www.argos-system.org</a> (1/20/2016)

(Service Argos 2015)

### Other Resources: Web Pages (Not Peer Reviewed)

Cite personal web pages only when you have no other alternative. Personal web pages are not permanent and they generally do not represent peer-reviewed material.

Farabee, M.J. 1997. Plants and their structure II.

https://www2.estrellamountain.edu/faculty/farabee/biobk/BioBookPLANTANATII. html (1/20/2016)

(Farabee 1997)

# Other Resources: Interviews, etc.

Ecology style does not have a specific format for citing videos, interviews, e-mail messages, conversations and other personal communications because these sources are generally cited only in the text, not in the Literature Cited list.

If you must cite an interview in Literature Cited, follow this format:

Last Name, First Initial. Month, day, year of interview. Type of interview.

Doe, J. August 10, 1999. Personal interview.

Johnson, P. April 4, 1998. Telephone interview.

## **RESOURCES**

The following resources may help you cite other sources that are not listed in this handout, as well as provide you with more examples on writing in Ecology style.

http://www.csuci.edu/wmc/student-citation.htm

We provide the most updated guides on Ecology formatting and style. *Ecology* (Journal)