

DOING LIBRARY RESEARCH

PRIMARY LITERATURE (AKA PRIMARY SOURCES, PEER-REVIEWED LITERATURE)

Results of original research, usually in the format of an article in a scientific journal. These articles contain either original data or original theory, and have been peer-reviewed by scientists in the same field as the focus of the research. Primary literature is often difficult to read, but because it has been peer-reviewed, you can more safely assume that it's conclusions are true, than when you're reading other, non-primary literature. Conducting research by reading journal articles from peer-reviewed scientific journals will also acquaint you with the names of scientists working in particular areas, and lead you to related articles cited in the bibliography.

ANNOTATED BIBLIOGRAPHY

A bibliography in which each citation is followed by a paragraph containing a brief descriptive and/or evaluative summary, synopsis, or abstract of your own writing. This paragraph should describe what you learned from that source. The purpose of the annotation is to inform the reader of the relevance, accuracy, and quality of the sources cited. Having an annotated bibliography also allows you, the researcher, to go back to research that you have done in the past and quickly remind yourself of the value and import of your sources, without having to reread all of the articles themselves. The annotated bibliographies that are due on January 24th should include at least 8 references.

CITATION STYLE

References Cited section: Your references (aka citations, sources) should be in APA format:

For journal articles: Author(s), Year. Title. *Journal* Volume #(issues# if applicable) : Pages.

For instance:

Spatchflock, D. M. & F. Donatario. 1897. The call of the deafening house mouse starts avalanches on Mt. Rainier. *American Naturalist* 35(4): 550-562.

For books: Author(s), Year. Title, Edition. City, State: Publisher. For instance:

Donatario, F. 1909. A naturalist remembers: reflections on mice I have known, 1st ed. New York, NY: Simon & Schuster.

- DO NOT list when or from where a primary source was retrieved from the Internet. This is unnecessary and distracting.
- DO list when an internet source was retrieved, and include the url. Very few of your sources, if any, should be internet sources.
- Always include all the names of the authors in your References Cited section. Only use "et al" in in-text references.

In text citations:

- Only include last name(s), and year of publication, as such: (Donatario, 1909). The only exception to this rule is if you are referring to a particular passage in a *book*. You may include the page number after the year, as such: (Author, year:page#).
- Two-authored journal article: (Last name of Author1 & Last name of Author2, year)
- Multi-authored journal article: (Last name of Author1 *et al*, year)

Electronic science resources at TESC

A. Journal indexing: <http://www.evergreen.edu/library/catalog/librarycatalog.htm>

This is where you go to do your literature search (to find out what is out there in the scientific literature). These databases will *not* give you the full text articles.

The best indexing database to search for primary scientific literature is **Science Citation Index** (also called ISI, and Web of Science). Once at the site listed above, click “Find a Database” and key in Science Citation Index. Going directly to their url will not work, as there are access restrictions.

Once you generate a list of articles that you are interested in through Web of Science, you have four broad options regarding how to proceed:

- 1) Use the full-text journals databases (limited value because TESC does not subscribe to many of these; see item B for more information).
- 2) See if TESC has print versions of the journals you’re interested in (also unlikely).
- 3) Order the articles you want most through Summit (interlibrary loan).
- 4) Head up to Seattle and spend a day at the UW libraries. On-site, you can access everything a UW student can, and their libraries, including electronic resources, are world-class. This is probably the option that will result in the best research and the least wasted time.

B. Full text journals databases:

This is where you go to actually get full-text journal articles on-line, once you know what you’re looking for. So, after doing a search on Web of Science, go to one of these to (hopefully) access the articles themselves. The best of these include:

- JSTOR (many journals represented, but lag time is 4 years—no access to articles from the past four years).
- BioOne (limited number of journals, but includes most recent issues)

BioOne journals of likely interest to students in this program:

Journals defined by research question:

American Zoologist (primarily functional morphology and physiology, but some behavior)

Animal Behaviour

Biotropica (tropical ecosystems)

Evolution (“significant new results of empirical or theoretical investigations concerning facts, processes, mechanics, or concepts of evolutionary phenomena and events”)

Integrative and Comparative Biology (formerly called American Zoologist; disparate papers on all aspects of animal biology)

Journals defined by organism studied:

The Auk (birds)

The Condor (birds)

Copeia (fish and herps—amphibians and reptiles)

Environmental Entomology (insects)

Journal of Arachnology (spiders, mites)

Journal of Crustacean Biology

Journal of Field Ornithology (birds)

Journal of Herpetology (‘phibs & reptiles)

Journal of Mammalogy

Journal of Parasitology

Mammalian Species

The Wilson Bulletin (birds)

Journals that Evergreen does not have, but that you should know about, and look through the abstracts as they come out (if possible), nonetheless:

Oecologia (<http://link.springer.de/link/service/journals/00442/>)

Behavioral Ecology (<http://beheco.oupjournals.org/>)

Marginal access through TESC:

Ecology (<http://www.esajournals.org/esaonline/?request=index-html>)



A few words about science journals generally:

The two biggies, the most prestigious (if not actually the ones reporting the best science) are

- Science
- Nature

One tier down from these are the biggest journals in broadly defined fields of inquiry:

- Evolution
- Ecology

And then there are more precisely defined fields, such as animal behavior. The best behavior journals include:

- Animal Behaviour
- Behavioral Ecology (<http://beheco.oupjournals.org/>)
- Behaviour
- Evolutionary Ecology (<http://www.kluweronline.com/issn/0269-7653>)

And then there are relevant pieces of research in hundreds of other journals, such as organism-based journals, as listed under the BioOne journals above.



In addition, TESC has access to some web-based zoological resources (not primary literature, but field guides, etc):

<http://www.evergreen.edu/library/catalog/wwwzoo.htm>