

DOING RESEARCH AND PREPARING FOR ANIMAL PRESENTATIONS

Your animal presentation will be a five minute PowerPoint presentation on the species that you signed up for. This brief talk should include at least:

- what is it (e.g. rodent, damselfly, bird),
- where is it found (and with what other organisms), and
- what does it do (its life history and ecology).

In conducting your research, you must use at least three sources from the primary literature, but there are also two very good animal diversity websites that can help you focus your attention; these are on the “Resources” page on the program website.

Some suggestions for visuals to include in your talk include

- At least one image of your organism
- A range map
- A picture of the habitat the organism is found in
- A picture of other aspects of the organism’s ecology—such as its prey species (if it’s a carnivore), or other species that it is often found with.

Save your presentation as a .ppt (PowerPoint) file, with your name in the title. Then save a copy of it in the *Projects* folder of the *Animal Behavior* program share on *Masu*, which is the network where the CAL offers space for academic programs.

While you are putting together these presentations, you will also make an annotated bibliography of the sources that you used. These are due next Monday (April 9) as well.

These presentations and research will serve two purposes in the program. First, to introduce everyone to the natural history of 25 regional organisms. Second, to introduce each of you to the research process, from finding primary literature, to putting it together into a cohesive story, to preparing a talk of limited duration that is nevertheless memorable. Five minutes is not long, and I will stop you after your time is up (we need to get through 25 of these presentations in one day—consider the effect if everyone goes over by three minutes). In part, the exercise is about oral presentation—what is effective? What isn’t? What do you do differently when in front of an audience than when practicing along? We’ll talk more extensively about your final research presentations later in the term, and those discussions will have more meaning once you have done these.

PARAMETERS BY WHICH I WILL ASSESS YOUR ANIMAL PRESENTATION TALKS

- Organization: Is it clearly organized? Does it follow an understandable path (that is, does it tell a story, as opposed to jumping around from fact to fact without connections made between them)?
- Content: What is the organism (to what larger group does it belong: rodent, damselfly, etc)? Where is it found? In association with what other biota? What does it do (natural history and ecology)?
- Clarity of visuals: Did the visuals add or detract from the presentation? How?
- Style of presentation: Was the speaker confident? Did s/he put the audience at ease?

A FEW DEFINITIONS

PRIMARY 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 its 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. 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.

CITATION STYLE

Your references (aka citations, sources) should be formatted as follows:

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

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

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

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

Electronic science resources at TESC

A. Journal indexing: <http://www.evergreen.edu/library/catalog/orJISci.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 **Web of Science** (also called ISI, and Science Citation Index). Once at the site listed above, scroll down to Web of Science, and click on the link through the Evergreen libraries. 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 Cascade (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:

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

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 of animal behavior:

Journals defined by research question:

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

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 Orthoptera Research (crickets, katydids, grasshoppers)

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:

Animal Behaviour (no easy electronic access even to abstracts, alas)
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>