

BIOL 4900: Animal Behavior  
Fall 2021  
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Final Project

In lieu of a final exam, you will have a final project. It will be similar to your invertebrate project, but more in-depth and have a presentation component. You cannot choose an organism for your final project that is in the same taxonomic family as the one you chose for your invertebrate project. Since we will have covered representatives of essentially the entire animal kingdom by the end of the semester, **only one student can pick an animal** (or small group of closely related animals) **from any given taxonomic family**. Additionally, **you cannot pick a species that we specifically covered in class** (for those picking rodent or primate species, check with Prof. Sanders as to whether a particular species will be covered).

The project will be worth 100 points total, including peer review of others' presentations. A rubric for the breakdown of grading will be provided.

As with your invertebrate project, you must include the following, plus the added details:

- Classification
  - Phylum:
  - Class:
  - Order:
  - Family:
  - Genus and species:
- Distribution in the world
  - specifics on what type of habitat within this/these region(s) and WHY this habitat is necessary for the fitness of this individual (relate to behavior if possible)
- Indicate the lifespan of the organism(s) chosen. Life span often has an important effect on the behavior of the organism, especially the mature organism.
- Key behaviors that we have covered with essentially all groups of organisms:
  - 1) feeding behaviors
  - 2) predation and/or predator avoidance behaviors
    - both if applicable to your chosen species; one or the other if not
  - 3) Reproductive behaviors, including (when applicable):
    - mate attraction
    - mate selection
    - reproductive strategies (egg-laying, nest protection, live birth, etc.)
  - 4) Environmental tolerance behaviors (e.g., dormancy, hibernation, migration)
  - 5) Any additional behaviors directly impacting survival/fitness
    - parental behavior (maternal, paternal, biparental), social behavior, territoriality, etc.
- Include at least three primary (peer-reviewed) sources and two secondary (like a textbook)
  - in your written summary, you should refer to these references like you would in any scientific paper, meaning, when you cite the reference you should follow those statements up immediately with the author and date of the reference in parentheses. (Or, if you are familiar with articles in the magazine "Science", you can list the references in order that you use them in your paper, and then refer to them by number – we'll discuss this).

The final product will be a **12-17 minute presentation** with 3-5 minutes for Q&A at the end. Yes, this is A LOT to cover in that period of time. Giving a short presentation is often more difficult than giving a long one, but

allows you to practice effective scientific communication in a concise manner. You must include photos of the organism (or organisms) you select in your presentation, but should keep the use of video to a minimum- no more than two 30 second videos to show examples of a given behavior. We want you to be able to show interesting behaviors, but not for pre-existing videos to give your presentation for you. The reason we are meeting with you before you present to review a draft of your presentation is to make sure that you are on the right track in all aspects of the project! Please look at that meeting as time to help you improve the work you have already begun. The more you have done, the more feedback we can give you.

Dates:

- Friday, 10/15 – deadline to pick species
  - first come, first served
  - no more than one student per FAMILY of animals
- Monday, 11/1 – Monday, 11/15
  - meet with Dr. Adams AND Prof. Sanders with a draft of your presentation
  - schedule of mutual student hours will be announced
  - when you meet with us, you will get to pick your presentation date/slot
  - again, first come, first served
- Monday, 11/22
  - first day of independent presentations (3 students)
- Monday, 11/29
  - second day of independent presentations (3 students)
- Wednesday, 12/1 (12:30-2:30 PM)
  - final day of independent presentations (remaining students)

Proposed points breakdown (100 points total):

- proper classification of species: 5 points
- habitat, distribution and lifespan: 5 points
- feeding behaviors: 10 points
- predatory/predator avoidance: 10 points
- reproductive behaviors: 10 points
- environmental tolerance behavior: 10 points
- additional interesting /unique behaviors: 10 points
- overall quality of presentation: 15 points
- proper use of references: 5 points
- peer review of your presentation: 10 points
- participation in peer review of other presentations: 10 points