**BIOL 2154 THE ANIMAL PROJECT**

**“What is THE ANIMAL PROJECT?”**

THE ANIMAL PROJECT is a comprehensive paper on a particular species of animal (selected by the student from a list).

THE ANIMAL PROJECT is the student’s opportunity to “shine” in presenting an scientific review of a particular species of animal; this project defies grades made on dreaded exams and allows the student to demonstrate his or her superiority in areas besides rote memorization.

THE ANIMAL PROJECT is a comprehensive report that fully documents the biology of a particular animal species.

THE ANIMAL PROJECT is an opportunity for the student to identify and focus on two examples of current research that has been published on their particular animal: documenting the research, summarizing the results and conclusions.

**“How do I choose an animal for my personal version of THE ANIMAL PROJECT?”**

Review the list of animals below and choose one, only one student will be allowed to sign up for each animal each semester. Do not assume that the more common animals will be more easy or interesting. Remember, this assignment is your chance to shine, in spite of your exam grades. You will want to choose an animal that will showcase your awesome research and presentational skills. Such a choice might get you a coveted “A” on the assignment.

**Phylum: Cnidaria**

Cannonball jellyfish *Stomolophus meleagris*

Portuguese man o' war *Physalia physalis*

Sea wasp *Chironex fleckeri*

Sea fan *Lophogorgi hebes*

Onion anemone *Paranthus rapiformis*

**Phylum: Ctenophora**

Comb jelly *Mnemiopsis mccradyi*

Sea walnut *Mnemiopsis leidyi*

# Sea gooseberry *Pleurobrachia pileus*

Ovate/Pink comb jelly *Beroe ovata*

Melon jellyfish *Beroe gracilis*

**Phylum: Porifera**

Red branching sponge *Ptilcaulis spiculifera*

Vase stinker sponge *Ircinia campana*

Yellow boring sponge *Cliona celata*

Scattered pore rope sponge *Aplysina fulva*

Yellow tube sponge Aplysina fistularis

**Phylum: Annelida**

Bloodworm polychaete *Glycera americana*

Bristle worm polychaete *Lepidonotus sublevis*

North American leech *Macrobella decora*

\* Earthworm Lumbricus rubellus

Christmas tree worm *Spirobranchus giganteus*

**Phylum: Platyhelminthes**

Trematode *Leucochloridiomorpha constantiae*

Liver fluke *Fascioloides magna*

\* Chinese liver fluke *Clonorchis sinensis*

Pork tapeworm *Fascioloides magna*

Rotifers *Asplanchna brightwelli*

**Phylum: Nematoda**

Sting nematode *Belonolaimus longicaudatus*

Root knot nematode *Meloidogyne incognita*

Steiner’s spiral nematode *Helicotylenchus dihystera*

Stunt nematode *Tylenchorhynchus claytoni*

Stubby root nematode *Paratrichodorus minor*

**Phylum: Tardigrada**

*Echiniscus cavagnaroi*

*Echiniscus virginicus*

*Parhexapodibius pilatoi*

*Minibiotus intermedius*

*Macrobiotus areolatus*

**Phylum: Mollusca**

Savannah Lilliput *Toxolasma pullus*

Cayenne keyhole limpets *Diodora cayenensis*

Pointed campeloma *Campeloma decisum*

Bladder snail *Physa acuta*

Dusky arion *Arion subfuscus*

**Phylum: Echinodermata**

Small spine sea star *Echinaster spinulosus*

Common purple sea urchin *Strongylocentrotus* *purpuratus*

Keyhole sand dollar *Mellita isometra*

Burrowing brittle star *Amphipholis gracillima*

Sea cucumber *Thyone briareus*

**Phylum: Arthropoda**

Blue crab *Callinectes sapidus*

Black widow spider*Latrodectus mactans*

Eastern tiger swallowtail butterfly *Papilio glaucus*

## Honey bee Apis mellifera

Etowah crayfish *Cambarus (Hiaticambarus) fasciatus*

**Phylum: Chordata**

**Super Class: Osteichthyes**

Blue Marlin M*akaira nigricans*

Red Snapper, *Lutjanus campechanus*

Cherokee Darter *Etheostoma scotti*

Coosa Madtom Noturus munitus

Alligator Gar *Atractosteus spatula*

**Class: Chondricthyes**

Cownose Ray *Rhinoptera bonasus*

Great white shark *Carcharodon carcharias*

Smalltooth sawfish *Pristis pectinate*

Atlantic stingray *Dasyatis sabina*

Bull shark *Carcharhinus leucas*

**Class: Amphibia**

Eastern hellbender Cryptobranchus alleganiensis alleganiensis

American toad *Bufo [Anaxyrus] americanus*

Southern leopard frog *Rana [Lithobates] sphenocephala*

Marbled salamander *Ambystoma opacum*

Red spotted newt *Notophthalmus viridescens*

**Class: Reptilia**

Leatherback Sea Turtle *Dermochelys coriacea*

Alligator *Alligator mississipiensis*

Pond slider turtle *Trachemys scripta*

Green anole Anolis carolinensis

Timber rattlesnake *Crotalus horridus*

**Class: Aves**

Wood duck *Aix sponsa*

Wild turkey *Meleagris gallopavo*

Great blue heron *Ardea herodias*

Golden eagle *Aquila chrysaetos*

Ruby-throated hummingbird *Archilochus colubris*

**Class: Mammalia**

Atlantic Right Whales *Eubalaena glacialis*

American black bear *Ursus americanus*

Northern long-eared bat *Myotis septentrionalis*

Florida panther *Puma concolor coryi*

Eastern cottontail *Sylvilagus floridanus*

**“Do I have to notify my instructor of my choice of animal for THE ANIMAL PROJECT? “**

Yes. As soon as you have made your choice you will need to notify your BIOL 2154 instructor of your decision. It is first come first serve on who gets what animal. A decision must be made by **January 24th**

**How should I start researching my animal for THE ANIMAL PROJECT?**

Try a Google search to get some basic information. While a Google search might lead you to sites that are not acceptable sources for your report, this basic information will be help you to become more familiar with your animal.

**What research sources are acceptable for THE ANIMAL PROJECT, and which are not?**

The information that you report on your animal must come from professionally-juried, professionally-managed, academically-oriented, college- level science sources.

Wikipedia is not an acceptable source.

Animal Planet is not an acceptable source.

Science Daily is not an acceptable source.

Galileo (GeorgiA LIbrary LEarning Online) is an online search engine that is available at the Georgia Highlands College Library page at [www.highlands.edu](http://www.highlands.edu). As a rule, text sources obtained through a Galileo search are acceptable.

We have also developed a library guide through Galileo that will aid in some content information: <http://getlibraryhelp.highlands.edu/c.php?g=479127&p=3287827>

The Georgia Highlands College library staff are very knowledgeable and will be glad to help you in your search for information.

If you have any doubt as to the quality of your sources, ask your instructor.

**How should THE ANIMAL PROJECT report be organized?**

1. **Introduction.** One or two paragraphs introducing your animal to the reader with a few general facts….detail will want to be saved for later.
2. **Biology of the animal.** What does the animal look like (you might insert a picture)? Where does the animal live ( you could insert a map showing the range of the animal) ? What does the animal eat? Is the animal characterized by a particular lifecycle? Details are very helpful in developing this section of your report.
3. **Reproduction of the animal.** Details of the animal’s mating and reproduction
4. **Ecology of the animal.** How does your animal interact with its environment? How does your animal interact with other organisms?
5. **Evolutionary history of the animal.** What are the evolutionary origins of your animal (since you might not be able to track down this information specific to your animal, you might have to settle for the evolutionary history of its representative group. For example: I might not be able to track down specific evolutionary information on Baird’s tapir  (*Tapirus bairdii*)*,* but I can probably find content on the evolution of tapirs.
6. **Current research on the animal.** Using the scientific name of your animal as a search term, use Galileo to track down an original research article concerning your animal. The article should be available in full-text form (so you can read it) and it should come from a peer-reviewed scientific journal. If you have any questions as to what constitutes a peer-reviewed scientific journal, you should ask your instructor or a member of the GHC library staff. This section of the report should document the research reported in the article: who did the research, where was the research conducted, how was the research conducted, what were the results, and what were the conclusions of the research. Be sure to include a screenshot of the top of the first page of the paper (should show the title, the author(s), and the journal of origin).

**How can I maximize my probability of getting a good grade on THE ANIMAL PROJECT.**

Read this handout carefully. Study the grading rubric (the last page of this handout. Be sure that you meet all requirements of the report. Be sure to include as much quality information about your animal as possible. In this case, “going above-and- beyond the call-of-duty” should net you an awesome grade.

**How do I submit THE ANIMAL PROJECT report…and in what format?** THE ANIMAL PROJECT report must be submitted as a hardcopy no later than **March 2nd**. The report should be printed in Calibri 14 point font (double-spaced) with standard page margins. The report must be stapled and should not be submitted in any kind of binder or report cover.

**How long does THE ANIMAL PROJECT report need to be?** The report should be sufficient in length to address the topic being covered. As some animals will have much more information on the topics than others a specific page requirement is not possible to list, however a typical paper will be over 5 pages double spaced.

**How many sources do I need for THE ANIMAL PROJECT report?** No less than 6 sources (including your source for the current research. The sources must be listed in appropriate format in a References section that should be placed at the conclusion of the report

Any format for references is appropriate as long as it is consistent. Here are a few links to help you reference your sources:

* <http://www.citationmachine.net/>
* <https://www.refme.com/us/citation-generator/apa/>
* <http://www.bibme.org/>

**BIOL 2154 THE ANIMAL PROJECT: GRADING RUBRIC**

1. **Introduction.**

Introduces animal. Provides a basis for the content of the report. 5

Introduces animal. 3

Absent. 0

1. **Biology of the animal.**

Provides a detailed and complete description of the biology of the animal. 15

Details lacking. Incomplete assessment of the animal’s biology. 10

Absent. 0

1. **Reproduction of the animal.**

Provides a detailed and complete description of the reproduction of the animal. 15

Details lacking. Incomplete assessment of the animal’s reproduction. 10

Absent. 0

1. **Ecology of the animal.**

Provides a detailed and complete description of the ecology of the animal. 15

Details lacking. Incomplete assessment of the animal’s ecology. 10

Absent. 0

1. **Evolutionary history of the animal.**

Provides a detailed and complete description of the evolutionary history of the animal. 15

Details lacking. Incomplete assessment of the animal’s evolutionary history. 10

Absent. 0

1. **Current research on the animal.**

Provides a complete and competent summary of the current research article. 20

Incomplete or incompetent summary of the current research article. 10

Absent. 0

1. **Length and format.**

Meets requirements. 5

Does not meet requirements. 0

1. **References.**

Exceeds requirements. 10

Meets requirements. 7

Does not meet requirements. 0

**TOTAL 100**