

# Study Guide for Biology 1413: Zoology

## Exam I

This is a guide to HELP you prepare for the Exam. It is not the exam. It does't include all the material that might be on the exam. It is only a guide to help you assess how well you have prepared for the upcoming exam. Do not waste the majority of your study time "looking up the answers" to these questions and then studying only them - you might do good if any of these questions happen to appear on the test, but you will miss everything else that we might also have talked about.

The best way to study for any exam is to take good lecture notes and then study the heck out of them; make your own outlines, make up your own questions, etc. Once you feel you know the material then see if you can answer these questions. If you can't answer them all then put these away and go back and study some more - you don't know the material well enough yet. If you can answer them all, then you probably also know most of the *other* material that will be in the exam as well.

1. In general, what proportion of living species on earth are animals, give some examples.
2. How, generally, does the number of animal species already identified and described compare to the number of animal species that probably exist on the planet today.
3. What exactly is an "animal"? List and describe the general characteristics of the animal kingdom.
4. What exactly is "science" and how is scientific inquiry different from other ways of learning about the world.
5. Describe a typical animal cell, list some of the main organelles or parts of an animal cells and the specific function of each
6. Name, describe and give the functions of the four primary tissues of animals.
7. Distinguish between sexual and asexual reproduction and describe several kinds of each.
8. Name each of the major **organ system**, describe their general function and list at least 2 **organs** related to each.
9. Name & distinguish between three general different kinds of immature animals.
10. Distinguish between the abiotic and biotic parts of an ecosystem.
11. Describe the most important characteristics of the three major types of ecosystems in terms of how they might affect the animals that live in each.
12. Explain the difference between **adaptation** and **evolution** and describe an example of each
13. What exactly is the theory of evolution by natural selection. Describe some of the evidence that supports this theory.
14. What is a binomial name and why is this so important to biologists.
15. Describe the general characteristics of **Protists**.
16. Describe the general characteristics of each of the 4 major kinds of **Protozoa** and describe an example of each.
17. Animals were probably the earliest multicellular organisms; what are the advantages and the disadvantages of being **multicellular** rather than unicellular
18. What are the main characteristics used to classify animals in **Phyla**

19. Be able to define the following terms (this is not a complete list): **animal, multicellular, heterotroph, aerobic respiration, theory, hypothesis, endoskeleton, exoskeleton, hydrostatic skeleton, digestion, gills, lungs, tracheae, incomplete digestive tract, salt glands, open circulatory system, ganglia, nerve net, biosphere, ecosystem, taxonomy, phylum, class, binomial name, protist, protozoa, cambrian explosion**