Good example of lab6 will address course outcome 4 essay

Environment, Animals

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- recognize and explain how the scientific method is used to solve problems

- make observations and discriminate between scientific and pseudoscientific explanations

- weigh evidence and make decisions based on strengths and limitations of scientific knowledge and the scientific method

- use knowledge of biological principles and the scientific method to ask relevant questions, develop hypotheses, design and conduct experiments, interpret results, and draw conclusions

Expectations: Please write in complete sentences with proper spelling and grammar. If a reference is used, cite it and provide a proper citation (http://owl. english. purdue. edu/owl/resource/560/01/).

Following this practice will help you avoid plagiarism (http://owl. english. purdue. edu/owl/resource/589/01/).

As mentioned in the Reading Assignment area, this week you are taking a broad look at " life". In the 2 weeks to follow, we will pull apart how " life"

interacts with " life". This lab will start that process as you observe organisms and hypothesize about interactions.

Complete the lab as directed, filling in where space is provided. You may want to print this lab and complete the questions on paper, THEN type them in. Once you have entered the information (using complete sentences and proper grammar), please submit using the attachment provided.

This lab can be continued, if you choose, as your Final Lab Project (due week 8). Get started, take your time, take notes, be thorough -- it is necessary, AND may benefit your project.

Module 5: Ecology

Lab 20: Biodiversity in Human-Altered Environments

A. Biodiversity Comparison

Lab Materials

Materials found in your lab kit:

Additional materials needed:

- access to the Internet

Activity

- Find a suitable location for your survey. The area should have a human-modified habitat such as a park or landscaped lawn, and a nearby area that is not maintained by humans—a " wild site" (the wilder the better). For example, you could visit a local park and compare the playground area to an unmaintained wooded area there.

- Describe the human-modified habitat in terms of how is it used by humans,

and describe the wild habitat in terms of the degree of wilderness. Include an estimate of the sizes of the human-modified and wild portions of your study area. Also, rate each site on a scale of 1 to 5, with 1 being " least wild" and 5 being " most wild."

- Description of human-modified habitat:

- Description of wild habitat (i. e., habitat not modified by humans):

- Do a fairly comprehensive survey of the plant species present within the human-modified and wild areas. The plants needn't be identified to the exact species, just common names (or close) and a brief description of the type of plant it is. Also keep track of the relative abundance of each plant (e. g., on a scale of " most abundant" to " average" to " least common") in each area.

Plant Life Observed

- Do a fairly comprehensive survey of the animal species present in the same two areas. Again, species names are not required, but do keep track of relative abundance of animals present (most abundant, average, least common).

Animal Life Observed

- Do a fairly comprehensive survey of the fungus species (i. e., mushrooms, molds) present in the same two areas. Keep track of relative abundance of fungi present.

Fungus Species Observed

Critical Thinking Questions

- Which area (human-modified or wild) was highest in species diversity? Why

do you think this is so?

- Give an example of one plant, animal, and fungus that you found on the wild side that wasn't present in the human-modified side. What is your hypothesis regarding the lack of success of these species in the modified environment? How would you test your hypothesis?

- Give an example of one plant and one animal species that adapted successfully in the human-altered environment. What traits were present on these species that allowed them to succeed in their new habitat?

- Were the plant and animal examples from question 3 equally abundant in both habitats? Hypothesize as to what may lead to population differences in the two sites.

- Were any species (plant, animal, or fungus) present in the human-modified area but not present in the wild one? If so, where might they have come from?

- Provide an example of a species in your study which you believe is a generalist. What traits does the species possess that indicate a generalist strategy?

- Provide an example of a species in your study which you believe is a specialist. What traits does the species possess that indicate a specialist strategy?

Summary

Compare the habitats modified and unmodified by humans in terms of types and relative abundance of species present.

- How do the plants in the two habitats compare in the quantity and quality

of types? How do the plants in the two habitats compare in relative abundance?

- How do the animals in the two habitats compare in the quantity and quality of types? How do the animals in the two habitats compare in relative abundance?

- How do the fungi in the two habitats compare in the quantity and quality of types? How do the fungi in the two habitats compare in relative abundance?

Please click the Submit button only once. The server may take some time to process your answer.

Warning: Be sure you have filled in every answer box, as you will be able to submit your responses only once.

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