## Lab 14. Variation in Traits: How Do Beetle Traits Vary Within and Across Species?

1. Describe how variation exists among different species that are similar.

2. Physical and genetic differences exist among the many types of living organisms that exist on the planet. Explain how scientists use the variation they observe among different species to classify them in different size groups. Does more variation exist among organisms that are in the same class or the same family? Explain your answer.

- 3. Observations are the same thing in science as inferences.
  - a. I agree with this statement.
  - b. I disagree with this statement.

Explain your answer, using an example from your investigation about variation in traits.

- 4. Scientific knowledge can change over time but is still reliable.
  - a. I agree with this statement.
  - b. I disagree with this statement.

Explain your answer, using an example from your investigation about variation in traits.

5. Scientists often look for patterns when they study nature. Explain why understanding patterns in nature are important, using an example from your investigation about variation in traits.

6. The relationship between the structure and function of organisms' features is an important area of study in science. Discuss why it is important for scientists to understand this relationship, using an example from your investigation about variations in traits.