

**Openness/Innovations/ Biology Worksheet**  
**Lab 17-18-1**

Answer/address all of the following questions on your own paper. Include all data tables. Answers should include any and all supporting material (graphs, spreadsheets, and text)

1. a. State a hypothesis to compare net abundance at the different habitats.  
b. State a hypothesis to compare net abundance with different beetle types.
2. a. Calculate the mean test to discover for all three habitats and beetle types.  
b. Present these results graphically.  
c. Choose one of your above hypotheses and carry out the appropriate statistical test to test the hypothesis.  
d. Discuss your findings for the wet/dry/and sunny/shade.
3. a. State a hypothesis to compare the number prey captured (if different) at the different habitat types.  
b. State a hypothesis to compare the quality of prey captured (highest amount of energy) with different beetle types.
4. a. Calculate the mean and standard deviation for all three beetle types in both habitat types (combine data for both experienced and inexperienced predators together).  
b. Present the data graphically.  
c. Choose one of your above hypotheses and carry out the appropriate statistical test to test the hypothesis.  
d. Discuss your findings for the optimal foraging by beetle experiment.
5. Pick one of the other 3 experiments from lab 1-4-4 that we did not do in class, create a hypothesis for the experiment.