**Amphipod Habitat Choice Lab**

**Biol 382**

Imagine you are a tiny shrimp-like creature living in a world of fish and small crabs. You need some way to avoid being eaten. Previously, on the docks, we noticed a number of species of Gamarid and Caprellid amphipods living in and amongst the algae. Some of these appeared to be matching the color of the host algae. Others did not, but rather mimicked their structure. Still others seemed to use anything they could to hide. So, what makes a good hidey-hole for an amphipod? Color matching? Structure? Maybe we’re imagining the whole thing. This week we will explore what makes a good home for an amphipod.

**Objectives:**

1. To learn how to evaluate habitat preferences.
2. To examine how variability in amphpod species influences habitat choice.
3. To understand how to design and execute a good experiment with clear results.

**Materials**

* + Tank of amphipods of various species
  + Tank of *Ulva* and filamentous red algae
  + Cotton balls
  + Plastic Sheeting
  + Tanks, finger bowls, etc.

**Methods**

1. First, note the variability in amphipod color and morphology. Compare this to the habitat choices provided. Where do you see opportunities for match and mismatch?
2. Based on your observations, in groups of four, come up with a hypothesis and corresponding experiment to evaluate at least one aspect of habitat preference. Discuss your plan with the professor or TA.
3. Execute your experiment!

**Writeup**

Follow the standard intro, methods, results, and discussion format. Your report will vary based on discussions with your professor and TA. Group writeups are due by the next lab period.