113 Lab Learning Objectives

Week 11: Information and Natural Selection lab #6

Learning Objectives for Environmental Information and Natural Selection

Skills

- Design well controlled experiment to test toxicity of plant extract.

Cognitive

- Employ a scientific approach to answer biological questions and test hypotheses.
- Analyze experimental data and reach logical conclusions.
- Construct a generalizable explanation linking genetically defined taste capacity to natural selection and evolution.
- Identify possible sources of environmental information that communicates the level of toxicity for plant tissues.
- Design an experiment to use model organisms to extrapolate potential toxicity of a compound or mixture.

Week 11: Information and Evolution Lab #4

Learning Objectives for Bacterial Evolution

Skills

- Pipet accurately.
- Work with bacterial cells using sterile technique.
- Make dilutions of stock solutions.

Cognitive

- Employ a scientific approach to answering biological questions and test hypotheses.
- Describe the big idea of evolution based on lab experiences.
- Explain how antibiotic resistant bacteria can appear quickly in the population.
- Design directed evolution process to select antibiotic resistant bacteria.