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Project Outline/Fish 507

20 February 2009

**Physiological response of Tidepool Sculpins (*Oligocottus maculosus*) to variance in salinity.**

Quantify expression of Na+/K+ ATPase and HSP 70 in 14 gill samples. 2 samples from 34 ppt seawater (control), 6 samples from 50 ppt seawater at 3 time points (day 1, day 3, and day 7), and 6 samples from 5 ppt seawater at 3 time points (day 1, day 3, and day 7).

1. Isolate RNA

2. Design Primers for target genes

3. Quantify RNA

4. Run PCR

5. Run QPCR

This is a very obtainable project goal as it utilizes techniques I have just recently learned and allows me to practice them without introducing any new techniques which I am unfamiliar with, reducing the chance for error.