Homework Assignment for Hemoglobin lab. Due the next lab period.

1. Write up your proposal for an experiment to elucidate the role of natural selection in shaping β-globin subunit genetic variation in deer mice. In your write up, you need to include:

1. Your essential question.
2. Your hypothesis.
3. Your predictions. To accept your hypothesis, what would your results be? To reject it?
4. The environmental variables you will examine.
5. The biological data you will collect.
6. Site descriptions, including locality, county, state and any other relevant information, for 6 sampling localities.
7. The number of individuals you will collect data on per population. Keep in mind that you will need to have enough samples and replicates for statistical tests to determine if any differences you find are significant.
8. A brief summary of any tissues that are available from your proposed sampling sites (from VertNet).