Part A. Work through the SimBio workbook for How the Guppy Got Its Spots (pages 1 – 12), and read through the following section on John Endler’s experiments. After completing the exercises, select the “Graded Questions” tab in the “Select an Exercise” box at the top of the SimUText window. Provide answers for the 10 multiple choice questions and upload to the SimBio web site by clicking the “Submit All” tab at the bottom of the page. These will be graded as part of the graded homework portion of this class and are meant to help make sure you understand the module. You can check whether you have completed all the questions by clicking on the “My Work” button at the top of your workspace.

Part B. Design a study to answer the question: Why are male guppies from different locations different? Write a brief scientific paper based on your study. Email it to Gabriel. Please format your document as LastNameFirstName_bioe109_Assignment2.doc(x). Refer back to your notes and the data you collected during the assignment to support the claims you make in your paper. Your paper should have a title and 4 sections/paragraphs with a 2 page limit on text (double-spaced, 1 inch margins, 12 pt Times New Roman font) plus up to an additional ½ page of figures/tables, including the following:

1. Introduction: Introduce the general problem/question you are studying, your hypothesis, and your general approach.
2. Methods: Concisely describe your study system, methods and experimental design.
3. Results: Present your results. You should include up to an additional half page of figures and/or tables and refer to them in the text of the paper. (choose figures/tables wisely). You do not need to perform formal statistical tests – simply summarize your data.
4. Discussion: Discuss the overall conclusions that can be made from your work. Make a claim, and use evidence and logical reasoning to justify your claim. How do your results relate to your initial hypothesis? Are there weaknesses of your work or future directions that your work indicates?

*See the attached detailed grading rubric for information about what is expected of you. We will be using this rubric to assess your work and provide feedback. We also suggest you use the provided template to ensure you comply with font, formatting, and file naming guidelines.