BIOL 4111 Evolution: Thinking essay assignment. Due: Thursday 11/10 (submit on canvas before class; will be scanned for plagiarism) 20% of your grade • Ask a good, difficult, and unresolved ‘How’ question in evolutionary biology. The question must require more information/research than has been presented in class to solve/answer. • Perform the literature review and research to present a possible solution o Cite at least 8 primary research articles; review articles are OK o A total of at least 12 scientific sources cited (research articles, books, scientific and reputable internet resources) • Organize your essay into three sections: o Why the question is relevant and important (20 points) ♣ Discuss why this is a relevant and important question in evolutionary biology ♣ Provide a historical perspective, and review the scientific progress in the area ♣ Discuss the current state of the problem, and what remains to be solved o The possible solution (35 points) ♣ Using the research you’ve conducted, discuss a possible answer to your question ♣ Do this methodically, citing good, relevant sources ♣ This section must show a synthesis of ideas and critical evaluation. Original thinking must be demonstrated o Testing the solution (15 points) ♣ Describe an experiment which can support the solution you proposed. Describe the experimental design (hypothesis, methods, data collection, analysis) in detail such that the experiment can be completed ♣ Discuss how the experimental data and results can be used to assess the solution you proposed • General requirements (10 points) o No title page o 11 font at 1.15 spacing throughout o 8-10 pages of words (not including the Works Cited page) o At least 12 scientific sources cited o Follow the CSE guidelines for citations • Overall quality (20 points) o A good, difficult question was proposed o Critical, original thinking demonstrated o Information framed, and flowed effectively; ideas conjoined to create a complete, critical evaluation of the topic o Clear, scientific exposition o Please do not plagiarize