

## Research Proposal Checklist

### Introduction

- organized from general to specific
- introduces the general topic<sup>1</sup>
- explains how the topic is relevant to the study of evolution<sup>1</sup>
- provides background on the study system<sup>2</sup>
- cites previous studies that are relevant to the topic and/or study system<sup>2</sup>
- ... clearly explains:
  - what is already known about the topic and study system<sup>2</sup>
  - what is not yet known (i.e., what your study will address)<sup>2</sup>
  - how your work will build on what is already known<sup>2</sup>
- ends with an explanation of your research question<sup>2</sup>
- references are appropriate,  paraphrased<sup>3</sup>, and  cited correctly

### Hypothesis

- clearly states at least one hypothesis:
  - that you will test, and  that is specific to your study system
- explains why this hypothesis may be correct, based on what you already know about the topic
- clearly states a critical prediction of each hypothesis (something expected only if the hypothesis is correct)

### Methods

- explains the general design of the study
- justifies why this study is a good way to test the hypothesis or hypotheses
- study is explained in detail, including:
  - species used,  location,  time frame,  data collected
- where possible, relate the methods to methods covered in class
- for methods not covered in class, cite references of studies using similar methods<sup>4</sup>

### Possible results

- ... for each hypothesis, describe two sets of results:
  - results expected if the hypothesis is correct
  - results expected if the hypothesis is not correct
- include enough detail that an outsider could evaluate whether your results support the hypothesis
- ... show all expected results graphically:
  - at least one graph per result
  - graphs include labeled axes and legends

### General

- correct grammar and spelling
- ideas are communicated clearly
- ideas are presented in a logical order, and  similar ideas are kept together
- avoids unnecessary wordiness and GETS TO THE POINT!!
- at least 1000 words (not including graphs and literature cited section)
- literature cited in format used in textbook

### Turn in:

- one hard copy with your name (for instructor to grade)
- two hard copies without your name (for peer review)
- all sources used, except books

<sup>1</sup> As described under “Introduction” in the “Writing Research Proposals” handout.

<sup>2</sup> As described under “Background” in the “Writing Research Proposals” handout.

<sup>3</sup> Paraphrased means in your own words (not in a subset of the source’s words, not in some of the source’s words and some of your own words). If you have any doubts about what constitutes plagiarism, contact the instructor ahead of time.

<sup>4</sup> Do not include methods or analyses that you do not understand or cannot explain in your own words.