Purpose:
The purposes of the peer-review process are three-fold.
1. The first purpose is to encourage students to produce the best possible materials by providing a specific and structured proof-reading and review process before the product is turned into the instructor for grading.
2. The second purpose is to allow peer-to-peer instruction, having each student raise the level of learning of the class by presenting new ideas and applications of concepts to their peers.
3. The third purpose is to provide students with additional opportunities to practice analytical and critical-thinking skills in the course as they analyze the structures, evidence, arguments, and plans as presented by their peers.

Guiding questions:
Use the following questions to help you read through your peer’s paper. As you read the submitted draft, use the comment and edit features of Word to give your peer constructive feedback. (Note: Constructive does not mean only positive, it means helping your peer understand what is confusing to a reader, what additional context or explanation might help, where the language or meaning is unclear or simply not accurate.) Be challenging: Let your peer know what they could do to make their paper soar and be excellent. The more constructive your feedback, the more support you are offering to your colleagues. You are trying to praise the good points your peer has made, and find the gaps in substance or logic that may not be immediately obvious to the author.

If you do not know how to enter the comments within the paper using the Review/Edit functions within WORD. Ask your TA for specifics.

Formal Report Rubric:
Also, include with your copy of the reviewed paper, a copy of the formal report rubric (in Laulima) that your TA will use to grade all final reports. Evaluate the draft, showing the number of points you think they have achieved in each area of the draft paper, and where appropriate add additional comments so that the author can understand what needs to be improved to be worth the full number of points in each category or section of the paper.

The Peer review is due half an hour before the regular starting time of your Lab during the week(11/18-22) before Thanksgiving Week on Laulima and you should send a copy of both the paper with your comments, and the Rubric for the paper to the author. This will give the author a full two weeks to revise and resubmit their final paper. All final papers will be evaluated based on the author’s responsiveness to both peer and TA feedback.

Title and Abstract
1. Is the title appropriate? Is it suitably specific and instructive?
2. Is the abstract concise (between 100 and 200 words), including the main points of the context, research and results, without using experimental details? If not, explain.

3. Is the abstract written interestingly enough that it makes you want to read the rest of the paper? If not, which parts could be changed?

**Introduction and Background**

1. In one or two sentences, state what you think is the major question being addressed by the author. If you had trouble determining the specific question being addressed, can you indicate what caused the problem for you?

2. Does the Introduction describe the motivation and focus of the experiment? Does it contain appropriate theoretical background, including definitions, explanations of important terms and description of habitat and species used?

3. Are all statements of fact or opinion well supported by references, data, or example? Give specific examples of cases in which you think the argument or point is not adequately supported, or where you can cite counter evidence that the author did not consider.

4. At the end of the introductory material, does the author indicate specific hypotheses to be tested, or specific questions to be answered?

5. Are the questions/hypotheses put into a bigger context?

6. Is the Introduction well-organized (from general to specific)? Do the ideas flow smoothly from sentence to sentence? Considering the hypotheses/questions, does any of the information seem excessive, inadequate, or irrelevant? Explain.

7. What do you find most interesting about the direction that this paper is taking? Is there anything the author can do to increase its interest for you, or to better convince you of the study’s value?

8. Is there anything in the introduction that seems confusing or unclear?

9. What would you like to know more about? What questions do you still have?

**Materials & Methods**

1. Are methods described using a narrative style (i.e., no bullets)?

2. Are the methods clearly outlined with sufficient detail to repeat the study, but without incorporating too many details? Are key materials indicated?

3. Are there important features missing, such as the names of species to be studied, locations and areas to be sampled, data included and analyses/statistical tests used?

4. Do you understand the reasons for each step proposed? If not, what issues confuse you?

5. Do you understand how the data was analyzed and why specific analyses were used? If not, explain why.

**Results**

1. Are the results presented in a narrative style (i.e., results are primarily described in full sentences and illustrated with tables or figures)
2. Are summary figures/tables/numbers presented (no raw data)?
3. Are all figures and tables numbered and referred to accordingly in text?
4. Do all figures and tables have informative captions? Are captions placed correctly?
5. Do all figures include clearly labeled correct axes and series (where needed)?
6. Are statistical analyses (significance) reported correctly in text?

Discussion
1. Are the analyzed results discussed to produce sound biological conclusions?
2. Is there a discussion of how or why the results support or refute the original hypotheses?
3. Are the results put in a bigger context and compared to other related research?
4. Are any potential design issues, errors, difficulties or short-comings of this study discussed (“student/human Error” is not acceptable for error reporting)?
5. Does the discussion describe the trends observed and provide a possible explanation for those trends?
6. Is the discussion structured in a way that is easy to read (flow of sentences and logic)? Is the problem reintroduced in the first sentence(s), connecting it back to the introduction and giving the results an overall framework? Is the last paragraph or sentence(s) a conclusion expressing briefly an appropriate and logical bottom line of the study?

Scientific Content
1. Is the reasoning accurate?
2. Are all possible inferences made? No illogical inferences drawn?

References
1. Are at least 5 references cited appropriately in a separate section according to the Journal Ecology?
2. Is the format consistent among all references?
3. Are the references always cited appropriately within the text?

Format, Grammar and Spelling
1. Has the document been spell-checked?
2. Is there a logical sequence of sentences and paragraphs?
3. Are sentences well formed and grammatically correct?
4. Any persistent, repeated spelling or other writing issues to note?
5. Is the format consistent and according to instructions (see “Ridge Project” description)?
**Process:**
In the peer review process, you are earning points in the following manner (12 points total).

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Not Evident/Not Completed</th>
<th>Insufficient</th>
<th>Sufficient</th>
<th>Expected</th>
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<tr>
<td>Provided meaningful feedback on data/research/analysis</td>
<td>0 points</td>
<td>1 point</td>
<td>2 points</td>
<td>3 points</td>
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<td>Comments are superficial and do not provide true analysis</td>
<td>Comments indicate correct analysis of data/research</td>
<td>Comments include specific suggestions and additional resources for consideration</td>
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<td>Provided meaningful feedback on structure/organization and clarity of points</td>
<td>0 points</td>
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<td>Comments are superficial</td>
<td>Comments indicate correct analysis of data/research</td>
<td>Comments include specific suggestions and additional resources for consideration</td>
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<tr>
<td>Provided meaningful feedback on the logic, assumptions and conclusions the author has drawn</td>
<td>0 points</td>
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<td>Comments provided are not logical or incorrectly state assumptions</td>
<td>Comments illustrate useful analysis of logic and assumptions and identify potential problems</td>
<td>Comments include specific suggestions for improving or resolving problems with logic or assumptions and help to restate recommendations that are better supported by the evidence</td>
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<td>Provided all comments in a positive, encouraging and constructive manner</td>
<td>0 points</td>
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<td>Comments might be interpreted as insulting</td>
<td>Comments include positive feedback and suggestions</td>
<td>Comments praise specific strengths of the presentation as well as the constructively addressing weaknesses with alternatives that might be considered</td>
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