**Activity 12B: Peer-Review (Model B)**

**Purpose of this assignment:** The goals of this assignment are (1) to provide your peer(s) with constructive feedback on their writing that will help them improve their papers and (2) to encourage you to reflect upon the process of scholarly publishing.

**How does it fit within the entire project?** The process of scholarly publication involves peer-reviews. As such, the peer-review you are performing here is akin to the work asked of professional academics. The peer-review process is critical to assessing the quality of the research work, the modifications necessary to it, and the advancement of the scholarly dialogue. The peer-reviews you receive will directly enable you to improve your paper and those you provide will help you reflect on your own writing, thus indirectly leading to improvements in your paper.

**Tasks required:**

* Complete a review of a peer’s paper following the guidelines provided in this prompt.

**Deliverable:** Completed copy of this handout uploaded on [LMS] by [due date].

**Estimated time:** About [xxxx]

**Group work or individual work?** Individual work.

**Notes to instructor:**

* This activity was modified from an activity originally developed by [Ryan Norris](https://eeob.osu.edu/people/norris.667).
* This activity is based upon the peer-review template of a discipline -specific journal (here the *Journal of Mammalogy*). The activity should be adapted to fit an appropriate model journal for the discipline of the CURE.
* Examples provided throughout the document should also be edited to reflect the disciplinary focus of the CURE.

**Step-by-step:**

Regardless of your final profession, you will be influenced by the peer-review process. It is foundational to modern science and allows for science’s gold standard, the peer-reviewed publication. The process is similar whether it involves a publication in mammalogy, medicine, or astrophysics. You have read many peer-reviewed papers, but I’m hoping to de-mystify how they came to be what they are, and, hopefully, why we hold them in high regard. You and your classmates have written papers that involve novel data that allow for you to address questions in a way that is unique relative to what’s come before. Some of you have drawn exciting conclusions or refuted established ideas.

There are numerous online sources suggesting how to write a good review; I might suggest this one: <http://www.indiana.edu/~halllab/grad_resources/Benos_2003_HowToReviewAPaper.pdf> I will provide a short set of explanations below, but bear in mind two primary goals. You are reviewing this paper: 1) to help the editor assess the quality of the paper and its conclusions 2) with the goal of helping the authors make it as good as can be. As with more senior scientists, you should not go into a review with the intent to help your friends or to thwart your competitors. The process is often anonymous to aid in that purpose.

Your review has two components: “Confidential comments to the editor” and “Comments for the author”. Please clearly divide your review into these two sections.

**Confidential comments to the editor**

These comments will not be shared with the author(s).

* + - 1. Begin with your final recommendation. Your four options are “Accept”, “Accept pending minor revision”, “Reject but encourage resubmission following major revision”, and “Reject”. If you would like, you may use a shorthand of Accept, Minor revision, Major revision, or Reject. The [model journal] has an online form for the upload. It involves a button indicating your decision and two simple plain text boxes. You will just be including this recommendation in your email to me. Some journals have an “Accept pending major revision” decision, but these are rarely used and we are copying [model journal], which does not use this.

I generally think of minor revision as restricted to situations where there are a few problems, but no new analyses are needed and the conclusions are soundly supported by the data. As soon as you start to require a new analysis, you open up the possibility that the conclusions will no longer be supported and it becomes major revision. Reject involves situations where it is not appropriate for the journal, the core conclusion of the paper cannot be justified, or the paper is in such bad shape that you don’t anticipate it can be made acceptable without overwhelming changes.

The reason your recommendation is not shared with the author is because the final decision rests with the editor after receiving all reviews. You may have overlooked a fatal flaw in the manuscript or you may have been much harder on the authors than other reviewers. The editor may decide after reading your review that you may be too close to the author or topic, that your recommendation is completely at odds with your review, or that you may not have adequate knowledge about an important component.

* + - 1. Beyond the recommendation, you may have nothing else you need to say to only the editor. That is fine. You may, however, want to share information exclusively with the editor. For example, if you are really unhappy about some aspect of the paper, this is the place to tell the editor you’re your concerns are and why you think these preclude the publication of the paper. You might also be wary to note something in the comments to author that may expose your identity. Mostly, however, this section is used to clearly explain your recommendation. For example, you might wish you were given an option for “moderate revision”. Let the editor know that. The bulk (or all) of your review, however, should be available to the author.

**Comments for the author**

* + - 1. Both the author(s) and editor will be reading this section. There are many ways to construct a review. It’s one of those writing tasks with no formally correct methodology. I do, however, tend to think that effective reviews contain 4 main components: summary, positive statements, major concerns (if present), and minor concerns. I will make recommendations along those lines.

Summary. Start by summarizing the paper and your thoughts about the paper. This isn’t exactly an abstract; your focus should relate to the major conclusions in plain language and how well they are supported. By summarizing the paper, you establish your understanding of what you read and can often explain that to the editor in less technical language than the authors are able to use.

Positive statements. It is important to acknowledge the positive in your colleague’s (or classmate’s) work. Acknowledging the good in a work has several other benefits. If your editor is not knowledgeable about the topic, they may need you to tell them that what is presented here is important or valuable. You not only need to justify why you failed to suggest a paper be accepted, but also why you failed to suggest a paper be rejected.

Major concerns. What are the main points that represent the focus of your review? If you did not recommend accept or minor revision, why? (Hint: it’s not because they mixed up “their” and “there” on page 14). Do you think they need to conduct a different analysis? Repeat the one they conducted using different parameters? Did they misinterpret their statistical test? Are they trying to draw bigger conclusions than their data justify? Did they overlook an important paper?

I tend to number these major concerns and devote at least a paragraph to each. This gives the authors a clear set of bullet points in their response. Note that the authors do not have to accept everything you say (and even the editor may tone it down in his/her decision letter), but if they disagree with you, they will need to justify it. You may disagree with the conclusions the authors present, but your main job is to decide whether their conclusions are justifiable.

Throughout the review, refer to the paragraph or sentences in question using the line numbers.

For example: “I disagree with the statement (line 76) that *Myodes* is clearly monophyletic. Kohli et al. (2014) clearly demonstrated that several *Alticola* species are part of the *Myodes* clade.”

I tend to end my major revisions section by stating something along the lines “Minor concerns follow.”

Minor concerns. This is where I place changes that, absent the major concerns noted above, might only warrant a “minor revision” decision. These may require a paragraph for explanation, a sentence, or just a few words. This may involve good science (e.g. “Line 56: Report your standard deviation in addition to your mean.” Or “Lines 19-24: Explain the settings of your BEAST analysis”), clarity (“Fig 3: Your gray icon on white background is not visible. Try black.”), or spelling/grammar (“Line 78: “their” should be “there”).

I will often use a shorthand that looks like this but you are not required to use this.

Minor suggestions follow:

Line 5: their -> there

L7 Italicize Myodes.

L10-11 This sentence is unclear

L17-19. Have you looked at Kohli et al. (2014)?

L27 “2010), the next” -> “2010); the next”

Note that your review is usually converted to plain text. If you want to refer to italics, for example, you should say so and not rely on something you wrote being italicized.

* + - 1. Finally, you probably cited literature in your review. If the papers you cite are already in the manuscript’s Literature Cited section, you don’t need to add the full citation in the review. If not, however, add a Literature Cited section at the end of your review. Formatting rules are looser here, but generally follow the journal’s approach.