A Peer Review Process Guide

"Review for others as you would have others review for you"

- McPeek et al., 2009

INTRODUCTION

This worksheet has been compiled from the advice of a number of journals and publications. The aim of the worksheet is to give less-experienced peer reviewers a concrete workflow of questions and tasks to follow when they first peer-review. ***Please note*** that this is a suggested framework for reviewers to follow. Depending on the journal or subject-field, some elements may be lacking. Users should adapt the worksheet to suit their needs, their personal review style, and the journal's guidelines.

EVERY PEER-REVIEW PROCESS SHOULD AIM TO (HAMES, 2008):

- Prevent the publication of bad work – filter out studies that have been poorly conceived, designed or executed
- Check that the research reported has been carried out well and there are no flaws in the design or methodology
- Ensure that the work is reported correctly and unambiguously, with acknowledgement to the existing body of work
- Ensure that the results presented have been interpreted correctly and all possible interpretations considered
- Ensure that the results are not too preliminary or too speculative, but at the same time do not block innovative new research and theories
- Select work that will be of the greatest interest to the readership
- Provide editors with evidence to make judgments as to whether articles meet the selection criteria for their particular publications
- Generally improve the quality and readability of a publication (although this is more a by-product of peer review)

Mathew Stiller-Reeve PhD, NORCE Klima, Bergen, Norway
EGU2018, 8-13 April 2018

In collaboration with Prof. Geraint Vaughan, University of Manchester and Bronwyn Wake PhD., Nature Climate Change

BEFORE YOU READ

Check if the journal has review-guidelines and adjust the following work plan where appropriate.

READ 1st TIME: Gaining an overview

1 Is the article in line with the journal's scope?

Yes?	No?
Continue	Doubtful since the Editor has accepted it for review. However, contact the Editor for clarification before proceeding.

2 Does your expertise cover all aspects of the article? If not, describe which sections you can respond to and why?

3 "Mirror" the article. Make a first draft describing the main aim of the article and why it's innovative.

4 Is the article publishable in principle?

Yes?	No?
Continue to 2nd reading	Describe the **fatal flaws** and submit your review.

READ 2nd TIME: The science

For the rest of the review, try and separate your points into **"Major"** or **"Minor" issues** and/or suggestions. Using bullet points can help the author(s) keep track when responding to your review.

5 Do the ***Introduction*** and ***Abstract*** clearly identify the need and relevance for this research?

Major issues:

Minor issues:

6 Does the ***Methodology*** target the main question(s) appropriately?

Major issues:

Minor issues:

7 Are the ***Results*** clearly and logically presented, and are they justified by the data presented? Are the figures clear and fully described?

Major issues:

Minor issues:

8 Do the ***Conclusions*** justifiably respond to main questions the author(s) posed? Do the Conclusions go too far or not far enough based on the results?

Major issues:

Minor issues:

READ 3rd TIME: The writing and formulation

9 Is the manuscript's story cohesive and tightly reasoned throughout? If not, where does it deviate from the central argument?

Major issues:

Minor issues:

10 How are the grammar and spelling in the manuscript?

Major issues:

Minor issues:

FINISHED?

11 Round off your review with a comment about whether you like to peer-review a re-submitted version of the paper, or if you look forward to reviewing the next round of edits.

12 Compile your responses to the points above into a single document. Here is a suggested order for your review:

A. Introduction: Mirror the article, your expertise and whether the paper is publishable or if there are fatal flaws;
B. Major issues:
C. Minor issues;
D. Other itsy-bitsy suggestions.

BEFORE SUBMITTING: READ YOUR OWN REVIEW!

13 Remember the quote on the first page! **"Review for others as you would have others review for you".** Make sure that your review is constructive and not offensive. Please change text that could be considered rude before you submit!

References and some other interesting and useful articles/resources about peer review

Hames, Irene. Peer review and manuscript management in scientific journals: guidelines for good practice. John Wiley & Sons, 2008.

McPeek, M. A., D. L. DeAngelis, R. G. Shaw, A. J. Moore, M. D. Rausher, D. R. Strong, A. M. Ellison, L. Barrett, L. Rieseberg, M. D. Breed, J. Sullivan, C. W. Osenberg, M. Holyoak, and M. A. Elgar. 2009. The golden rule of reviewing. American Naturalist 173:E155–E158.

Nature Masterclass: Focus on Peer Review (free). https://masterclasses.nature.com/courses/205

Design by Suet Chan