Class Website:
https://www.esf.edu/srm/yanai/publishing/

Zoom link: https://syracuseuniversity.zoom.us/j/6620094816?

Class schedule

Date	Class	Assignments Due
Jan 17	Why Publish?	*Background presentation (5 minutes)*
Jan 22	Discuss *Getting Started*	*Getting Started Exercise*
Jan 24	Figures and Tables	*Tables and Figures*
Jan 29	Outline and Objectives	*Outline and Objectives with Abstract (revised)*
Jan 31	Results	*Draft of Results*
Feb 5	Choosing your Journal	*Knowing your Journal Exercise*
Feb 7	Materials and Methods	*Draft of Methods*
Feb 12	Writing exercise	No homework
Feb 14	TBD Help	Bring a difficult section
Feb 19	Last-chance informal reviews	*Rough draft for first review*
Feb 21	Preparation for peer review Editing and proofreading	***Submit Results and Materials and Methods Sections*** *with Abstract and Objectives* (for First Peer Review)
Feb 26	Discussions (examples)	Bring examples from your field, include Conclu and Summary if any
Feb 28	Statistical party game	Your statistical section
Mar 4	Drafts of Discussions	*Draft of Discussions*
Mar 6	Advice, Responses to Reviews	***First Peer Review Due***
	(Spring Break)	
Mar 18	Introductions (examples)	Bring examples from your field, number the paragraphs
Mar 20	Drafts of Introductions	*Draft of Introductions*
Mar 25	Mid-semester feedback: Jake BDay	*Anonymous feedback*
Mar 27	Last-chance informal reviews	*Rough full draft*
Apr 1	Readings on Peer Review	***Submit Rough Draft*** *and Response to First Reviews*
Apr 3	Authorship	*Authorship Exercise*
Apr 8	Ethics, Solar Eclipse peaks at 3:25!	***Second Peer Review Due***
Apr 10	More About Writing	Bring something challenging to work on
Apr 15	Abstracts (examples)	Bring in copies of an example from your field
Apr 17	Proposals (without Ruth)	Bring examples of RFPs, proposals
Apr 22	Abstract review	*2 copies double-spaced*

Date	Class	Assignments Due
Jan 17	Why Publish?	*Background presentation (5 minutes)*
Apr 24	Last-chance informal reviews	*Nearly final draft!*
Apr 29	Steps to Publication	***Final Draft of Manuscript*** *and Response to Second Reviews*

Contact Info **class conflicts**

Ruth Yanai: 315-345-7412 rdyanai@syr.edu | QUERCA Survey link |
Kelley Gilhooly: 802-557-4245 | kagilhoo@syr.edu | topic overview | Exercises | outline | paper
Erin Cornell: 631-629-9994 | ecorne01@syr.edu | Paper Link | Slides | Exercises | Reviewer's Copy of Paper | Erin's Review for Hollis
Jacob Olichney: 434-851-7544 | jaolichn@syr.edu | Slides link | Getting Started | Outline | Paper | Journal |
Hollis Harrington: 315-955-4310 | hcharrin@syr.edu | Slides | Getting Started | Outline | Paper | Reviewer Copy | Erin's Review Copy
Jake Beidler: 717-269-5596 | jbeidler@syr.edu | Slide | Paper link
Sara Sternick: 413-426-8053 |ssternick@esf.edu| Paper | First Review| Second review| Response to Ruth's review| Response to Jake's review | Abstract

Class Notes (newest on top)

Plans to finish

Jacob: finished! Except for extra info for the journal
Hollis: The paper? Probably today. Response to reviewers and other documents? I'm shooting for Tuesday!

Journal Requirements:

Erin: Submitting to Ecology

- Submission type, title, abstract, whether or not it is a special feature or forum
- Substantive area, organism, habitat, geographic area, and keywords (12 max for each category)
- List of authors
- Suggested reviewers
- Cover letter
- List of funders
- Manuscript details:
    - Number of words
    - Number of pages (except supporting info)
    - Number of tables
    - Number of figures
    - Author liscense agreement

- Conflict of interest statement

Jacob:
I'm submitting to Forest Ecology and Management, which requires:
Information on Article Type - Full Length Article
File name must be less than 36 characters.
File item type - Manuscript File
Suggested Reviewers - 4 are required.
Acknowledgment of Funding Sources
Preprint access preferences
Data availability and ownership - In this case, data is owned by the USDA BRAG grant and collaborators, and we will make this data available upon request.
Other research elements that I would like to publish along with my manuscript - Data and Code
Extra Comments for the publication office.

Hollis:
The manuscript will be submitted to Water Resources Research which requires:

- A list of authors, their emails, and affiliations. Individual author contributions can be indicated using the CRediT taxonomy.
- ORCID for all authors
- Three or more suggested reviewers
- Permissions to reuse any figures that were previously published by a non-AGU journal (not applicable).
- Data availability statement.
- Copies of articles cited as unpublished and an explanation of need in your cover letter.
- An optional cover letter identifying any conflicts of interest.

The full checklist with detailed requirements can be found here.

Recipes:

Flourless chocolate cake, just don't dust pan with flour, use powdered sugar instead
https://www.allrecipes.com/recipe/8536477/italian-flourless-chocolate-torte-torta-caprese/

Cheesecake:
https://sugarspunrun.com/best-cheesecake-recipe/

King Cake:
https://www.allrecipes.com/recipe/8144/mardi-gras-king-cake/

Berry Crisp:
https://www.allrecipes.com/recipe/52547/triple-berry-crisp/

Chocolate chip cookies. DO NOT USE A TBSP OF SALT. Just a tsp will do.
https://basicswithbabish.co/basicsepisodes/2017/10/23/baressentials-7xwwz

Recipe tips:
Use vanilla paste where it calls for vanilla extract
Browned butter is good in anything.

April 29 Steps to Publication

Claim a topic to study and report back to us

The Submission process: Hollis

- Journals provide detailed lists of what needs to be included in the paper
    - Intro, methods, keywords, graphical abstract, etc.
- This can also include paperwork other than the manuscript such as journal publishing agreement, cover letter, and reviewer list.
    - Cover letter should detail information about the paper (originality, merit, importance, etc.) and why the journal was chosen.
- Submission/acceptance fees should also be noted in the pre-submission paperwork
- May also mention data repository usage for large files.
- Register for ORCID, SCOPUS, or other author ID system
- Figures usually aren't required to be publication ready during initial submission
- Try submitting a dummy paper to walk through the process!

The Review Process

Correspondence with Reviewers: Sara

- Many potential reviewers choose to decline, which can prolong time to publication
- Duration of review (in Ecosphere) is usually estimated to be 50 days
    - Actual time: Jan 3rd-March 24th, still not enough reviewers accepted
- If you show interest in a more popular ("fast") paper with many other reviewers who do accept, you may not end up writing a review for the paper, and may also be invited to be a reviewer on a paper with a similar topic
- Some publishers can be persistent in reminding people about invitations to review, or reminding people to send in their review even if it is past the original due date
- If you choose to decline being a reviewer, it is encouraged to include names of other possible reviewers
- Many publishers expect reviews to be completed within three weeks (21 days)

(Ignore Instructions to Reviewers and Examples of Reviews)

Examples of Responses to Reviews: Kelley

- Address your response to the editor

- In the letter, thank the reviewers for their oh so generous comments
- Explain your formatting
    - Thank you for the opportunity to improve our manuscript for publication in Ecosystems. Our responses to the reviewer comments are detailed below in blue. Excerpts from the manuscript are black Times New Roman with additions in red ~~and deletions indicated by a strikethrough.~~
    - We believe that these revisions have improved the paper and we hope that you will find the manuscript to be acceptable for publication. We look forward to hearing from you soon.
- Sign the letter on behalf of all coauthors
- Response should include the the entire comment from the reviewer
- The comment from the reviewer and your response should have a format difference, like color or italics.
    - Lines 25-28: Abstract results are written in a slightly confusing way; successional stages need to be defined in the abstract before introducing the results of mid-successional
    - The second sentence of the abstract introduces our interest in succession: "The suppressive effect of nitrogen (N) addition on soil respiration is well documented, but the extent to which it may be moderated by stand age or the availability of soil phosphorus (P) is not well understood." When we introduce the results of the comparison with stand age, we define the mid-succesional age class: "Mid-successional stands (26-41 years old at the time of the first nutrient addition)…"
    -
- Your response should be polite, even if the reviewer's comment is rude
- A reviewer may say that something is confusing. This could be because they read the paper too quickly or the text is genuinely confusing. Either way, you need to clarify what they were confused about. Your readers will also be reading quickly!

Line 228: which reasons?

We had said,"We report results both with and without the covariate for several reasons." The reasons are given in the subsequent sentences. We corrected the sentence to: "We report results both with and without the corresponding covariate for the following reasons."

- A reviewer may say you need to perform additional experiments before publication. In this case you can either actually do those experiments and report the results, or you can adjust your conclusions to reflect the experiment you actually did
- A clear, polite, and thorough response to review can almost guarantee a faster review process
- Your job is to document the improvements you made to your paper. Do not just answer the questions the reviewer poses. You need to prove you improved the paper.

Decision letters: Jake

- Decisions:
    - Accept: "recommended for publication", "pleased to inform you",

    - Reject: “not suitable for publication”, “regret to inform you”, “not currently acceptable”
    - Revise: “favorable but needs improvement”, “acceptable after major revisions”
    - Resubmit: “encourage to submit” (fake rejection)
        - Allows publisher to re-use reviewers and speed up time to pub
- Provides justification for their decision (some give more than others…)
    - May provide comments from reviewers
- Timeline: ~30 days for revisions if recommended for publication after revisions
- May suggest next steps for rejected/resubmit-able work (submit again or to a different journal)
    - Take with salt

Proofs and Production:

- Proofs
    - Journal will usually tell you how soon you can expect proofs
    - Corrections can be submitted either online or by fax
    - Proofs are reviewed and only minor corrections should be made before final publication
        - Options:
            - No correction
            - Few corrections - submit only relevant pages
            - Major corrections - submit entire manuscript
    - You can order offprints
    - You are given the article metadata to review
    - Author Query
        - Form authors must fill out if there is correction needs to be made
    - Corrections made get forwarded to type setting team and if further clarification is needed, the journal manager will contact you
    - When corrections are incorporated, the proofs are finalized and the journal sends you a citation 🙂
    - Examples
        - https://www.esf.edu/srm/yanai/publishing/documents/Hg_climate_change.pdf
        - https://www.esf.edu/srm/yanai/publishing/documents/sssaj2018-09-0335_proofed.pdf
        - https://www.esf.edu/srm/yanai/publishing/documents/TP_Young_corrections_2023.pdf
- Correspondence with Publisher
    - Fixes for file errors in corrections/proofs
    - Publisher + Author agreements
    - Publishing Rights
    - Ethics Agreements
    - Disclosure of funding
    - Disclosure of Authors and Affiliations

Requests for Improvements for Mary

Proofs and Production Details - Ecosystems (Proofing Nightmare!) Link is 403 Forbidden

- Call this one “6 rounds of proof corrections” (or however many we did)

Proofs and Production Details - “Mycorrhiza” should be called “copy-edited version prior to typesetting”

Proofs and Production Details - Ecosphere zoom link should be moved to Examples of electronic page proofs

Examples of Electronic Page Proofs - Global Climate Biology leads to 404 Error

Exit Cards

Erin: What a great semester! Thank you for all your comments, reviews, and help! 🩷

Jake: This class was so much fun! Learned and laughed a lot this semester (:

Kelley: This was a great class! I learned a lot about how to improve my writing and how to provide valuable input to others

Hollis: I’m going to miss Jacob’s baking.

Sara: I learned a lot about writing in this class!

Jacob: Thanks for all the great reviews. It’s nice getting feedback from people that are smarter than I am.

Ruth: Thank you for a great semester, 100% engaged and capable students.

Lulu: I loved my life in the lab, and classes were the best part.

Future Plans

Jake: Lead the summer MELNHE crew, finish up my Ca paper + thesis, and attend weddings (:

Erin: Finish results and discussion revisions after my committee meeting today. Hoping to have it completed by the end of the week! 🫡

Sara: I need to figure out exactly what my thesis will be focused on… looking forward to spending the summer in NH :)

Kelley: power through the rest of my analysis, rewrite results and discussion, somehow also take a final??

Hollis: Hoping to send out the paper to Bill and Adam before my grant starts next month. Back to dissertation work I go!

Ruth: I’m not retired yet–I hope to see some of you experienced authors in future years (not for credit, but you can write more papers with us)

Lulu: dog heaven!

April 24 - Last-chance informal review

Timelines?

Grades are due on May 14. If they get in shortly after that, they probably won’t become an incomplete. It’s also fine to get an incomplete, it can be replaced by a grade at any time.

Hollis: Monday!
Erin, Kelley: the pre-defense copy, timed along with the defense date
Jacob: May 3-7th? Issues with inaccurate survival data from the remote sites
Jake:
Sara: Second draft by the end of today

How can we most help you with your paper?

Kelley: I have some handwriting questions
Hollis: Mostly a work session. I need to prep a couple of figures for tomorrow. Other than that, it's the nitty gritty stuff.

Erin: I think I just need more time to work on my response to reviews
Sara: Work session to finalize second draft

April 22 - Abstracts

How's your paper?

Hollis: Fine! Should be going out to Adam and Bill soon.
Jake: Working on draft 2; it's coming along! The foliar data is *beefy*
Erin: It going alright. I have to go through my new review comments and add new results. A lot to do! Very stressed!
Sara: I am so close to finishing the second draft, should have that done by Wednesday.
Kelley: struggle bus
Jacob: One must imagine sisyphus as happy

How's your abstract?

Erin: I think its ok :) word count: 208/250
Jake: Probably could be improved (: word count is 213/250
Hollis: First draft-ish. My word count is around 190 but the limit is 250. I also only have one key point right now. I can have up to three.
Kelley: wrote it in 20 mins just now
Jacob: Pretty good abstract, despite it all…232/250
Sara: Mine could use a better conclusion

Exit Cards and Ideas for How to Help on Wednesday

Ruth: I want to keep editing your abstracts–for some I'll be able to when I'm a co-author!
Jacob: Thanks for the suggested titles and corrections!
Erin: Thanks for all the feedback! I think my title will be better!
Jake: Appreciated the feedback, feeling better about my abstract (:
Hollis: It's difficult to be concise.
Kelley:

Sara: Thanks for the feedback, always appreciated

April 17 Class at 2:15

Fill out course evaluation forms! Done!

What's in a proposal?

Varies by who you're writing a proposal for

- Two consenting adults
- A ring
- Parent permission slips
- Ryan Reynolds and Sandra Bullock
- Preliminary Data - helps reviewers
- Long term goals and objectives
    - Hypotheses and null/alternative hypotheses
    - Products and Outcomes
- Broader impacts/Implications/expected products and outcomes
    - Broader impacts was found in newer grants
- CVs and experience
- Budget
    - AND justification for budget (give me moneys plz)
- Current funding and support (if applicable)
- Project timeline
    - Setup, collection, execution, writing, products, etc.
- Conflicts of interest
    - Grad students from the past couple years and colleagues from your institution will be excluded as possible reviewers
- Introduction
    - Background, relevancy, previous findings, some included preliminary data in this section, ongoing research
- Letters of support
- Proposed methods
    - For each objective
- Project personnel and collaborators
- Page limits to proposal
- Deadlines

What's in a proposal review?

- How well it fit for the call for proposal
- Scientific merit
- What you liked about it!
    - Pros and cons list

- Assessed broader impacts
- Rating system: do you think this research should be funded?
- Assess how well the methods fit the objectives
    - Too much and too little methods
- Synthesis and recommendations
- Assess qualifications

Why do you write proposals?

- Money!💸💰
    - Procedures, technicians, etc. Answer scientific questions
    - The college wants you to get grants so they can get money
- Food
- ~~Fun~~

Exit cards

Ruth: This was a terrible time of year for me to leave you all, in terms of your papers (and theses!), my seminar at Mich Tech got rescheduled twice! I'm glad to be here and glad to see you can have a class without me. It looks like more fun than it is when I'm there!
Jacob: Erin did a great job leading class today. It was helpful to break down the parts of a proposal.
Erin: I hope I did a good job leading class! I've never written a grant proposal before 🥺
Jake: Proposals seem pretty hard ~-~
Hollis: Now I know how to make that chedda 🧀 🧀 🧀
Kelley: Go Erin!

April 15

How's it going?

Hollis: Got through Ruth's edits this past weekend. Need to read over Erin's, but should be ready to send to Adam and Bill in the next week or two!
Jake: Finished methods and intro (ish). Results getting updated again…
Erin: I just got my review back! Yay!
Kelley: working on chapter 1 and capstone presentation while waiting on my reviews!
Jacob: Revising my survivorship analysis yippee!
Sara is aiming for a week from today, maybe sooner.
Jake too!

What's in an abstract?

Background– + problem statement
Methods

- optional if straightforward
Objectives, hypotheses if relevant
Results summary
Brief conclusion
What's not in an abstract? References

FOR694: Abstract Examples

1.

On Wednesday (@2:15)
On monday, bring abstracts, bullets and key words if you need them

Exit cards:

Kelley: I will not leave without my review!
Sara: cooked apple crisp>uncooked
Jake: My affirmations 🙏: I will finish my draft this week, I will finish the soils report this week
Hollis: Going to dig up my “Getting Started” exercise.
Jacob: Breaking the abstract into key sentences was super helpful. Apple crisp was good 👍
Erin: 🤠 i agree with jacob
Erica: I liked reading abstracts of different topics that people are interested in!
Ruth: I feel competent when we can improve a published abstract 😎
Ruth: I miss Lulu.
😔

April 10 More About Writing

Advice from Janine DeBaise, whom I asked for materials to teach sentence structure

I learned to diagram sentences when I was in elementary school, and I always loved how precise and mathematical it was, but no one teaches that any more. And to be honest, anyone who has reached their twenties without knowing grammar is not likely going to learn that way.

I find with my students that their big problem is reading too fast (because they know what they wanted to say). I'll circle a sentence and say, "Read this aloud." They will read it aloud and say, "Oh, that doesn't make sense."

Reading aloud is a simple tool that can often help because it slows them down. They read it aloud and realize it's wrong. Then they have to struggle to rewrite it so that it **does** make sense.

I have students do peer review: they read each other's papers and circle parts that are confusing. Then the writer knows where to focus.

Reading the paper aloud backwards can help with sentence-level errors as well. You read aloud the last sentence of the paper. Then the second-to-last sentence, etc. That causes the writer to focus on whether or not each sentence makes sense rather than getting caught up in the flow of ideas.

Those are my quick suggestions.

What is the problem

Ruth: when writing informally, I ramble, and I add fragments. So I have to go back and make shorter sentences, or add fragments to other sentences.
Kelley: subject and verb are too far apart within the sentence, making it hard to follow
Sara: trying to fit too much information into one sentence, also deciding where to start when introducing a topic
Jake: sometimes i find it hard to stay in past tense ~~passive voice~~, especially following a comma
Erin: I think I tend to overuse transition words
Jacob: Proper use of commas and semicolons, especially with long lists of things.
Hollis: Poor comma usage. Odd overall structure. Overusing certain words.

Topic sentences

Discussion Section:

Many studies have shown that Mo may be another constraining element on N fixation (Barron et al., 2009; Dynarski & Houlton, 2018).In some experiments, Mo was inadvertently added in P fertilizer acted as a hidden treatment, overstating the effects of P addition on N fixation (Barron et al., 2009). The MELNHE study does not include a Mo treatment, so the effects of Mo availability on N fixation on the forest floor cannot be evaluated. This may result from bacterial growth rates dependent on metal-cofactor concentrations (Bellenger et al., 2011). Mo content within the soils might explain the variability in fixation rates. Future fertilization studies should investigate the elemental composition in the fertilizer to ensure that it accounts for potential Mo effects.

The rates of relative height growth (RGRh) differed more between silvicultural treatments than among the tree types in this study, although. Height growth for all tree types was slower in the shelterwood than in the open field ($p < 0.001$), with an average reduction in RGRh of 47% (Figure 1, Table 1). No significant difference in RGRh existed between OXO+ and BC3F3, Hybrid, Stronghold, or Red Oak trees in either growth condition ($p > 0.16$, Figure 1, Table 1), although transgenic trees in both silvicultural treatments exhibited impaired height growth compared to their non-transgenic full siblings with 50% lower RGRh ($p = 0.006$). Transgenic trees exhibited a 50% lower RGRh compared to their non-transgenic full siblings, and no differences in in RGRh existed between OxO+ and the other tree types. RGRh of non-transgenic trees were similar to BC3F3 and stronghold irradiated trees in both silvicultural treatments ($p > 0.10$, Figure 1, Table 1). Some trees exhibited negative RGRh metrics, which reflected trees that lost their leader to a variety of mechanisms (e.g., herbivory, frost damage).

Previous studies have found that N addition increases N immobilization rates as well (Zhau et al, 2015, Zheng et al, 2017). Our results suggest in an N rich environment, increases in N immobilization are due to N availability in the soil and not due to lower C:N ratio in the leaves. Nitrogen addition can cause changes in the decomposer community such as decreasing microbial C:N, decreasing the fungi to bacteria ratio and increasing soil N availability (Zhou et al, 2017). These changes can lead to an increase in N immobilization.

- Organize paragraphs by studies looking at N affecting the soil and N affecting the litter quality. So substrates that were added to the fertilization sites, and then studies that measured litter quality

Examples in need of help

Jacob (from methods):

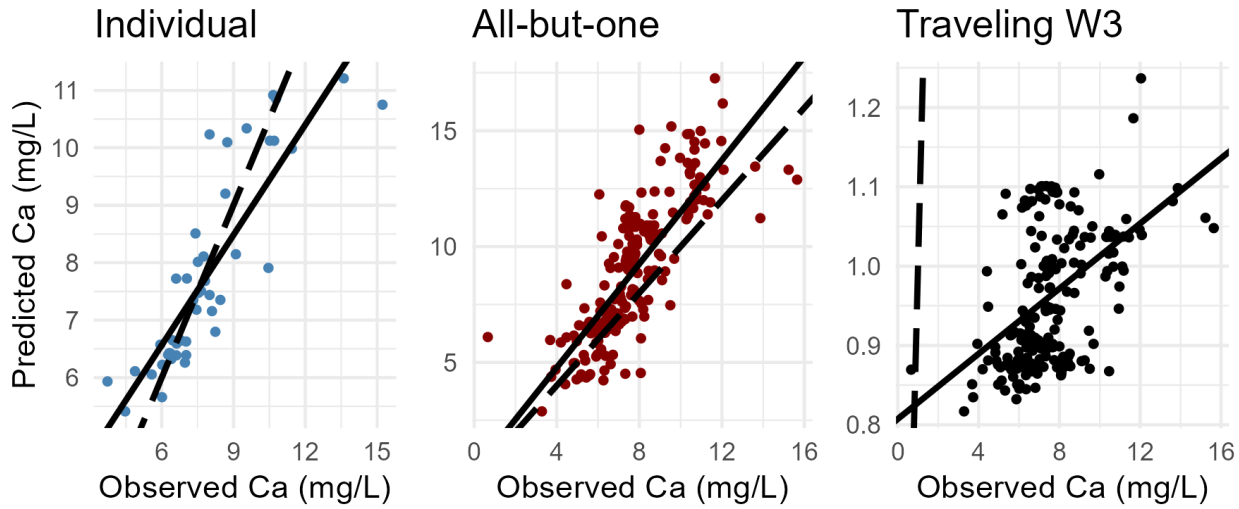
Absolute height and diameter growth rates and relative height and diameter growth rates were analyzed using two-way mixed effect type III ANOVA tests using the lme4 and lmerTest R packages (Bates et al 2014, Kuznetsova et al 2017); with tree type, silvicultural treatment, and interaction between type and treatment as fixed effects. Random effects for growth rate models were site location, block, and group nested within block. Post-hoc tests were accomplished through Tukey's means separation contrast tests and Sidak confidence interval calculations using the lsmeans R package (Lenth 2016).

Hollis: (From results)

Model comparison

The individual models had the highest model performance metrics, as the traveling and all-but-one models suffered from bias. This pattern was seen in the comparison of observed and predicted Ca concentrations at LMP (Figure 10). The individual model performed well with a slope of 0.64 and an intercept of 2.73. The all-but-one model over predicted Ca concentrations, with a slope of 1.14 and an intercept of 0.41. Even more bias was observed in the traveling W3 model at LMP, with a slope of 0.02 and an intercept of 0.81, as the model predominately underpredicted Ca concentrations. The time series of the predicted Ca concentration from the individual model compared to the all-but-one model shows that general temporal variations were similar, but the all-but-one model showed greater extremes (Figure 11). Unlike the Ca models,

all-but-one SO_4 concentration predictions failed to follow temporal variations in LMP. The poor performance of the all-but-one model was expected for SO_4 in LMP as the model had a NSE value of -0.39 and R^2 of 0.06, suggesting the model was not merely biased.



Jake: (Excerpt from my results section)

Mean community-level foliar Ca concentrations decreased with CaSiO3 addition ($p=0.06$), from 9.6 ± 2.6 µg Ca g^{-1} in control leaves to 8.75 ± 1.3 µg Ca g^{-1} in CaSiO3 -treated leaves. Mean community-level Ca concentrations varied by tree species ($p<0.01$), and by site ($p=0.06$). The highest foliar Ca concentrations were observed at Jeffers Brook at 9.7 ± 2.8 µg Ca g^{-1} and the lowest were at Hubbard Brook at 7.6 ± 0.5 µg Ca g^{-1}. In American beech, foliar Ca decreased with CaSiO3 addition from 8.6 ± 0.8 µg Ca g^{-1} in control American beech leaves to 7.85 ± 1.4 µg Ca g^{-1} ($p=0.08$). Similarly in sugar maple, foliar Ca decreased from 8.32 ± 0.6 µg Ca g^{-1} in control leaves to 7.1 ± 0.5 µg Ca g^{-1} in CaSiO3-treated leaves ($p=0.04$). In white birch, mean foliar Ca concentrations increased with CaSiO3 addition from 8.55 ± 1.4 µg Ca g^{-1} in control white birch leaves to 10.65 ± 0.3 µg Ca g^{-1} in CaSiO3-treated white birch leaves ($p=0.02$). Among white birch, mean foliar Ca concentrations varied by site ($p=0.02$), where white birch mean foliar Ca concentration were highest at Bartlett at 9.9 ± 0.7 µg Ca g^{-1} and lowest at Hubbard Brook at 6.5 ± 0.0 µg Ca g^{-1}.

The number of vesicles and/or arbuscules changed significantly over the course of the growing season, while the number of hyphae and microsclerotia found in samples were not significantly impacted by date of sample collection. A study by Mesquita et al (2015) documented root colonization changes in Colorado alpine meadow ecosystems, and found a similar result: while the degree of root colonization by AMF and FRE changes over the course of a growing season, the degree of colonization by DSE is not affected by timing of collection (within the growing season). A reason for the number of hyphae not being significantly impacted by date of collection could be due to hyphae being present from all or multiple types of root fungi (AMF, FRE, and DSE).

Exit Cards:

Kelley: I liked this exercise, I got useful advice and its always good practice to edit other people's sentences because it will help me write better ones myself. I found it difficult to all be editing the one paragraph with everything moving around and changing color. That's the one part of this exercise that I think could be improved
Jake: I found today super helpful! I feel a lot more confident about finishing this draft 😎
Hollis: Mildly helpful. I would need to really sit down and review my grammar rules to fully benefit more from one of these reviews. (Which is a personal deficit, not a critique of today's class).
Jacob: This was helpful. Being more attentive of usage of "although" and "however" to avoid confusing readers is good advice.
Sara: I think it was helpful to learn about sentence structure, and then apply those ideas to our writing
Erin: I think this was pretty helpful and a welcomed break from the other material. I struggle with grammar and sentence structure, so I liked working through some examples
Ruth: I still want to learn to diagram a sentence!
Lulu: So long, and thanks for all the laps ❤️

April 8 Ethics + Eclipse

April 3 Authorship

Readings here: https://www.esf.edu/srm/yanai/publishing/exercises.php#author
Point system here: https://www.jstor.org/stable/pdf/20168086.pdf

Author contribution statements

Contributor Roles Taxonomy CRediT
https://www.elsevier.com/authors/policies-and-guidelines/credit-author-statement

What you write doesn't matter as much, you can shout out the chrono-crew if you want, or mention herding cats!

Acknowledgments

Discussion

- How do you communicate order of authors?
- How and when to communicate who is an author?
    - What if someone put in a lot of work that you don't use?

- Weighted decision over multiple papers
- An author that did work, but maybe you had to redo everything they did, that person still is on the author list
- The last author is not the least important, its an important person who is very knowledgable
- Some disciplines are alphabetical
- When will you know what the authorship order could be?
- Technicians go in the acknowledgements
- Adding a third author means the second authors name isnt recognized, consult second author before adding a third
- You are more recognizable if you are first author
- What constitutes those categories of planning executing etc?
- Ordered by points, then by alphabet, doesn't really matter if you are 8th or 9th
- Using unpublished dataset
    - You want to add those people to your author list
    - If the data is published in a thesis but not in a journal…
        - Is a thesis a publication???
        - Do you get authorship if you are publishing your data in edi?
        - For now yes

Vancouver Protocol
https://www.lib.chalmers.se/en/publish-and-analyse/publish-research/authorship-guidelines-and-ethical-standards/

Your Authorship results here

Erin:

	Erin	**Ruth**	**Michelle**	**Hyatt**	**Sarah**
Planning	20	20	20	20	20
Executing	20	0	10	0	10
Analyzing	20	10	0	0	0
Interpreting	20	10	0	0	0
Writing	20	5	0	0	0
Total	**100**	**55**	**30**	**20**	**30**

Authors: Cornell, Yanai, Wong, Batterman (unless Ruth wants last position)
Acknowledgements: Erica Albertson, Jake Beidler, Lindsay Holland, Kelley Gilhooly, Geoff

Wilson, Lisa Martel
Internal Reviewers: Marty Jurgenson, Colin Beier

Jacob:

Criteria	Jacob	John	Molly
Planning	0	20	0
Executing	0	10	15
Analyzing	20	0	5
Interpreting	20	5	0
Writing	20	0	0

Authors: Olichney, Drake, Franklin
Acknowledgements: Sean Satchwell,
Internal reviewers: Andy Newhouse, Steve Stehman

Criteria:	Sara	Adam Trautwig	Elsa Cousins	Rick Williams	Kristina Stinson	Ruth Yanai
Planning	30	40	15	0	15	0
Executing	50	50	0	0	0	0
Analyzing	50	25*	0	15*	0	10
Interpreting	70	20*	0	0	0	10
Writing	70	15*	0	0	0	15
Total	270	150	15	15	15	35

*AT did some analysis, but I am not going to be using it, as I am analyzing things differently. Same goes for interpretation and writing: he did some work on it (based around the idea that the plants are indeed mycorrhizal) but I have chosen to take the paper in a different direction, and I don't think it would be accurate to declare the samples as definitely mycorrhizal.

Authors: Sara Sternick, Adam Trautwig, Kristina Stinson
Acknowledgements: Ruth Yanai, Elsa Cousins, Rick Williams, Jeff Chieppa
Internal Reviewers: Jennifer Reithel (or someone else at RMBL), Adam Trautwig, Steve

Stehman (regarding analysis)

Hollis:

	Planning	Executing	Analyzing	Interpreting	Writing	Total
Hollis	5	10	20	20	20	75
Ruth	20	15	0	20	15	70
Mark	20	15	0	20	15	70
John	10	5	0	20	15	50
Erin	0	0	15	5	5	25
Kelley	0	0	15	5	5	25
Jake	0	0	15	5	5	25
Ryan	0	0	15	5	0	20
Adam	0	0	0	5	0	5
Bill	0	0	0	0	0	0

Authors: Harrington, Green, Yanai, Campbell, Beidler, Cornell, Gilhooly, Ruggiero, Wymore, McDowell
Notes: I don't know what contributions occurred before starting in the fall. Mark or Ruth would likely be the last author. Adam and Bill would currently be acknowledged, but are anticipated to provide edits in the near future.

Kelley .

	Planning	Executing	Analyzing	Interpreting	writing	total
Kelley	5	20	20	20	20	85
Ruth	20	0	10	10	10	40
Chris	0	0	0	5	0	5
Brianne	0	10	0	0	0	10
Eme	0	12	5	0	0	17
Jenna	15	15	5	5	0	45
Joe		10				10

Author: Kelley, Ruth, maybe jenna (ask her, jenna can be an author without doing more)
Acknowledgements: brianne, joe, eme, lindsey, tian tian

Jake's Ca paper Authorship Exercise Table

	Planning	**Executing**	**Analyzing**	**Interpreting**	**Writing**	**Total**
Jake	0	0	20	20	20	60
Ruth	20	10	0	10	10	50
Mark	20	0	5	10	5	40
Adam Wild		20	0	0	0	20
Scott		20	0	0	0	20
Kara		20	0	0	0	20
Jenna		20	0	0	0	20

Authors: Beidler, Yanai, Green,
Acknowledgements: Wild, Dai, Hong, Kara, Zukswert
Internal reviewers: Ruth, Mark,

Person	Planning	Executing	Analyzing	Interpreting	Writing	Total
Erin :)	5	20	20	20	20	85 ✅
Ruth	10 (?)	5	10	10	20	55 ✅
Adam Wild	20	20	0	0	0	40 ✅
Joe (?)	0	10	5	0	0	15
April Zee(?)	0	5	5	0	0	10
Jon Cale (?)	5	0	0	0	0	5

Exit Cards:

Kelley: I'm glad to have been part of this discussion. Authorship is trickier than I thought! And pretty subjective!
+

Jake: Herding cats sounds fun! Cool discussion today! Learned mucho! 😸
Hollis: Maybe I can add more authors to make it an even 20.
Jacob: I never throught about how adding a third author changes the citations in context of how citations are perceived by others.
Sara: I learned a lot about fairness in deciding authorship, including the last author spot being significant.
Erin: Great discussion! I think this helped clear up any confusion I had.
Ruth: Note to self: Add to this assignment: Write “author contributions” and evaluate whether your authors meet the Vancouver protocol.
Lulu: I’m not feeling well and I had to get an X-Ray today 😕and the vet took three tries to get 2 pills down my throat.

Revised due dates? Reviews are due 1 week from getting the draft!

- Jake: April 10?
- Sara: April 10?
- Jacob: April 1?th
- Kelley: April 3rd

April 1 Readings on Peer Review

Highlights from these readings

- All top level ecologists have received rejections, but it does not handicap them as scientists and professionals :)
- “Herding” behavior - choose a theme to advocate in their manuscript submission based entirely on what they have observed from others, independently of what they initially thought was true
    - Reviewer comments are subject to herding
    - Peer review performs best when reviewers exercise their subjectivity at an intermediate level. High level = enhance risk of complete herding in reviewer descisions. Low level = curbs info flow from reviewer decisions

- Studies have shown that authors tend to rate their own work higher on average than other studies they are asked to review. This study argues that authors who are asked to review other papers actually produce higher quality work.

- Many reviewers in studies catch less than half of the “mistakes” in faulty articles
- If the reviewer knows the author and/or institution from which the article was produced, this can lead to a bias. On the other hand, ¼-½ of reviewers correctly guessed the identity of the author in a 2005 study
- There is a need for protection of intellectual property, demonstrated when reviewers can push the publishing date forward on a paper they review for the purpose of trying to submit an article on a similar topic. In one study out of 220 research scientists, 10% of

them have reported this problem

Jacob

- Some journals offer the opportunity to have peer review reports published (Open reviews), which is good because peer-review criteria are often not posted by journals
- some also allow for post-publication review/paper updates based on anonymous reader reviews
- Some reviewers may assess conflicts of interest, such as how funding sources may influence research

Jake

- Peer review system is flawed:
    - Two functions: 1) improve manuscript, and 2) determine biological importance
- "The first principle [of good science] is that you must not fool yourself – and you are the easiest person to fool."
    - Positive, novel, and clean results are more likely to be published, harder to publish negative results.
    - P-hacking is bad!

Hollis (article here)

Who's Afraid of Peer Review is a must read

Open access journals have varying peer review processes

How's it going?

Kelley: My revised draft is not completed :(but its gotten a lot better from before! I'm almost there and I will have it on Wednesday. Sorry for not meeting this deadline!
Jake: In the process of revising methods and results. Coding again (woo woo!)
Hollis: Did another quick analysis over the weekend and included it in the full draft. Still need to spot check some things, but nothing too crazy right now.
Jacob: Stats and responding to reviews 💪😎 -> 😢
Sara: I have some statistics details to work out and a meeting with Steve on Thursday afternoon. After that I may have to modify my discussion but otherwise am on track to finish the draft
Erin: I have a draft for you. Do I think its my best work? No. But I think I need to move on and focus on my Chapter 1 now.
Lulu: I don't feel well. But I would rather be here in my corner than home alone.

Reviewer assignments

Sara reviews Kelley reviews Erin reviews Hollis reviews Jake reviews Jacob reviews Sara.

Which reviewers want paper copies:

- Ruth
- Erin
- Sara: electronic is fine

- Jacob - not necessary but I can give better feedback if I have paper
- Kelley does not want a paper copy
- Jake: I'd prefer paper but can do without
- Hollis: Digital! And digital response.

Exit cards

Hollis: Nice brain break for the day. Changing my career from publishing unintentionally bad articles to publishing intentionally bad articles.
Jacob: Neat class today, I've never thought about peer review criteria.
Jake: Enjoyed talking about the peer review process. It's not something I usually think about…
Sara: Interesting to hear thoughts on the peer review process. Back to work on the paper!
Erin: Fun class! Glad I finally got my draft completed. It may not be my best work, but its time I focus on other writing
Kelley: My hierarchy of needs were not met today. I liked the discussion though! Very important to think about bias in the peer review process before I throw myself into it
Ruth: Thank you once again for generating all the content for our class. I miss some of the older papers that reported more data about reviewers, maybe I'll bring them up to the top of the pile.
Lulu slept through the whole class. She's not very worried about peer review.

March 27 Wacky Wednesday (In-class Peer Assistance)

What would help you the most?

Sara: Time to work and also advice on main objectives of the study
Jacob: Or just time to work 😩
Erin: I could use a work session, but a general review of my draft could also suffice
Jake: I might benefit from talking to coauthors (:
Kelley: bringing in a section, probably results, to get feedback on. Time to work would be excellent!
Hollis: Time to think about the nitpicky details and working on wording.
Lulu: Spending time with Nora :)

March 25 Midterm Feedback for Improvement

1. Below is a list of the topics and activities in the course so far. Please indicate which you found especially useful, which least useful. (Scale of 1 to 5 with 5 being most useful.) Give specific suggestions for improvement if you have any.

Why Publish?

I liked this discussion because it is good to take a step back and contextualize why we are even doing this. Keeping the big picture and our goals in mind is important for any task where it is

easy to get stuck in the weeds
I didn't really have an idea of why publishing is helpful/important (besides putting a published paper on a resume) before discussing in class

Discuss Getting Started

This was helpful for contextualizing the paper and setting up concepts for future writing
I liked this because it helped frame the story of the paper
I really appreciate the value of the getting started exercise! It's helped me with other papers!
Great for forming an abstract too!

Figures and Tables

It was helpful to get feedback on figures, but I felt we could have done this a second time to finalize figures. Verdict: 3/6
-Agreed. Crayola crayon class?
-Agreeing with the second pass on figures even if it's not a full session. Perhaps having a before and after data festival.
-agreed!

Outline and Objectives

Outlines are useful for organizing information
I think the objectives side of this is more useful than the outline. Most people were already using outlines.
This was one of the less useful classes, but I appreciated the extra time to get results ready
Could be cut back or combined

Results

Going over example results sections might be a useful addition to the results portion of this class, if time allows.
-agreed
-double agreed Verdict: 4/6

Choosing your Journal

Helpful for knowing where to steer the intro and discussion of paper
An important thing to discuss for first time authors. It felt long though, and maybe could have been half a class

- Maybe a study hall/ work sessio for other half?

Materials and Methods

Learning how to include important details and leave out extraneous information is a good skill to have, and applicable in many types of writing

Writing exercise

I actually enjoyed identifying parts of sentences and this was a big aha moment for picking better subjects and verbs in my own writing!

I thought this was helpful and should be more commonly done in writing classes
I loved this, it made a big difference in how I think about my sentences. I would like more!

TBD Help

I like the nonstructured classes where people can ask for help with what they most need help with. I think everyone usually has a big bear to tackle that might not fit in with a category that matches everyone else
Heard chef

Last-chance informal reviews

Preparation for peer review

Learning what a reviewer looks for, and how to write a review was really helpful in structuring my own paper*

As a first time author, I found this helpful. I think having gone through this practice exercise will help me feel less nervous about the peer reviews I receive after I submit

Editing and proofreading

Discussions (examples)

Looking at “bad” discussions was helpful in learning what not to do

Statistical party game

This was one of the more helpful days. Either one of two things happened: 1. The person reviewing the stats section knew about your test and could critique it or 2. They had no idea and gave you the opportunity to explain it thus testing how well you knew it.

Fave party game

Drafts of Discussions

A little bit of peer-pressure is healthy

Advice, Responses to Reviews

Getting a review was helpful in identifying areas of my paper that needed improvement

(Spring Break)

I enjoyed spring break (:
Me, too. The semester is easy after we get to this point (anonymous comment from the instructor’s point of view).
Y’all got a break? No 😂
Rossi likes when I work from home!

Introductions (examples)

Going over examples of good (and bad) introductions was a great exercise. It's one thing to know what information should go into an intro, and another thing to know how to structure that information effectively

Drafts of Introductions

2. What future sessions would most help you prepare your manuscript for publication? Are there other related topics you would like to address that aren't on the list? Here are the proposed future topics, please rate them on a scale of 1 to 5.

Mar 27: In class peer assistance

Apr 1: Drafts due for 3/6 authors. (Kelley, Erin, Hollis) Readings on Peer Review

This is a no-homework day, unless I ask you all to contribute to the reading list. It started with a paper collection of papers on peer review

Apr 3: Authorship

I have about 10 co-authors, half of them are in class, and I have no idea how to organize them.

This is something I'm excited to learn about because I feel like there can be gray areas when deciding who gets authorship and who doesn't.

Apr 8: Solar Eclipse peaks at 3:25!

Eggcited! (:
Do we need eclipse-themed snacks? (moon pies??)

- Let's brainstorm
- Sun chips
- Capri suns
- Moon pies
- Milky ways

What to wear?

- Tinfoil hats
- Eclipse glasses
- Star themed garments
- Space suit
- Moon shoes

Bring chairs and hammocks if its nice out

Apr 10: Ethics

This is a no-homework day, we have a document produced by (I think) NSF, and we divide and discuss, on a day wh

- Homework is unethical :) agreed

Apr 15: Abstracts (examples)

Yes! More examples!
Bring bad examples, please
Very helpful in general to write abstracts as one of the last steps, gives a better synopsis of the paper and can be tailored towards the intended journal

Apr 17: Proposals

Ruth will be out of town giving a talk at Mich Tech. Erin said she could lead the discussion on proposals. If this changes
Nah I'm certain Erin will do a great job!

Apr 22: Abstract review

Apr 24: Last-chance informal reviews

Apr 29: Steps to Publication

Excited for this section. Not something I've had a lot of experience with, and a good last topic for this class.

3. There are many ways we can work together. Do you have comments or suggestions on the value of these alternatives?

Pairs or triples, trading feedback in class

I liked this structure. Helped give me more time to read over the sections and provide more tailored feedback.
More feedback from different perspectives is always helpful
-second that

Writing formal reviews out of class

I liked getting to write up a review. Having a large chunk of time to sit down with someone's paper and read it over helped me provide better feedback. Time consuming, but better than trying to understand a section in 5-10 minutes

This was challenging to put myself in the shoes of a reviewer/editor but also a useful exercise
My review comments were better outside of class

Informal peer assistance outside of class

Group discussion

Personally I find it intimidating to talk about my paper with the entire class. I liked the groups of 2 or 3 people

Going around the table to equalize participation

I personally enjoy getting to see what everyone brought with them and I think this was an efficient way to do that

Class notes

Paper or electronic?

Ruth: I felt better about getting through everything you brought in for review when it was on paper.
I prefer paper because my laptop is old and bad
Keeping track of comments and changes is easier (for me) on the computer
I also think its easier to keep track of comments on the computer

Study parties…

I feel as if the most valuable activity we do is writing formal reviews out of class. They're the most time consuming, but they let me really sit down and digest someone's paper. I feel as if my comments during class are basic, but I can provide decent feedback if I can read it over the weekend. Working in groups of three is also helpful, and I would argue more so than pairs as you can get multiple perspectives.

I feel like group discussion tends to be the weakest of these activities, although group discussions aren't necessarily bad. The biggest issue is that we read and digest material at different rates, so discussions are usually led by the faster individuals. There isn't really a good fix for this other than reading and prepping material ahead of time which isn't a great fix. That being said, this may be more for group discussions for papers rather than group discussions as a whole.

4. We have a very diverse group of papers, and we don't all know each other's fields. Do you have any suggestions for improving our effectiveness in spite of this diversity? How much diversity is desirable?

I think getting to pair/triple up was helpful, as there was some overlap in subjects or base discipline. I found as the semester goes on I learn more about everyone's topics.

I think we're doing well with the diversity of our papers for now. The one thing that could be helpful to include for each paper is a glossary of common terms or concepts that the target audience would be expected to know. Stopping to look up terms currently slows down my review process.

I think the diversity of topics and background knowledge is helpful in identifying things that

need further explanation in my paper, so someone outside of the specific field can still understand it

5. Other comments or suggestions.

Lulu: more walks and treats

So far we usually have a section due, we have people give us comments, then we have the next section due. I think it would be helpful if we had a second day to go over the edits we made based on those comments. Sometimes I get comments then don't look at the section for a little while. It would be nice to have a second look before the graded version is due

Baked goods recipes?

Exit cards

Jake: Woo thanks for the birthday crisp Jacob!
Kelley: thank you Ruth for your flexibility in the class structure and organizing the class in a way that best benefits us students! Distinguished professor!

March 20 Review of Introductions

What can we help you with?

Lulu: My publicity photo shoot, thanks!
Sara: I collected so much information to help understand the topic of my paper, and put a lot of it into the introduction. I think I have too much information, and also not enough linking back to the study. So advice on what to pare down and what to add, also the info might not be in the right order, sorry about that
Hollis: Fixing the space above my name. Check! Also, the early version of the intro sounded like Chapter 1.
Kelley: last class we discussed including everything that is in your model. I have moisture in my model but didn't know where to include it. Its not a huge focus of my paper. Also, how much background should I include on the importance of each element I talk about. I was putting it all in one paragraph
Erin: I'll take any help I can get :) Do you think I gave enough context? Not too much or not too little?
Jacob: Providing proper and relevant justifications for the stuff I'm measuring.

Lessons Learned

Exit Cards

Hollis:
Jacob:
Jake: RIP🥴
Erin: Thank you for all the helpful feedback! I admittedly, dont think I put a lot of effort into my intro since I last worked on it. But it will be better next time!
Kelley: printing process was annoying today but I think I got better comments from Ruth and got good electronic comments from Erin so maybe it was worth it!
Ruth:
Lulu:

March 18 Introduction to Introductions

What is the job of an introduction

Kelley: start big and broad then narrow down to introducing the question the study answers

- What's the problem to be solved?
- explain important topics
- Language flags what the question will be
    - "This is unclear", no false leads!
    - Lead the reader to the study objectives
- DON'T put background with the objectives! >:(
    - NO references in the last paragraph!
- Justify all factors mentioned in the experiment

Jake: provide contextual framework for required for understanding the study design and results
Jacob: Provide context for measurements/establish terminology
Erin: provide context for the study
Sara: Introduce important concepts and explain significance of experiment
Hollis: Present hypothesis for the experiment (at the end)
Ruth: End with the objectives
Introduction Powerpoint

Examples, lessons learned

No background in Objectives
Each factor should be justified (possibly one per paragraph)

- Study system usually needs to be justified!
- There's no value in numbering objectives!

Flag words

While ___, ___ is less clear.
___ may be important.
___ remains unknown.
___ might be important.
___ remains unknown
___ which should exhibit
___ which should theoretically
more ___ is required
To date, no studies have ___
There is debate as to ___
___ is needed
_____ is of great interest

DON'T say:
___ will be discussed.
Including results in objectives is weird
Dont say "since" if you mean "because" if "since" could be understand to mean time (we saw "coincidentally" where "concurrently" would have been unmistakable)

Exit cards

Hollis: Cookies make intros better. I strive to continue bringing poorly written papers that have decent subjects.
Jacob: Topic sentences! The intro I brought was bad :(
Sara: I have the feeling that the first draft of my introduction is going to be really long
Jake: Tummy hurt but cookie good
Erin: I had fun today! I enjoyed looking at bad examples 🤓
Kelley: I already know how to make my intro better!
Ruth: Thank you everyone for bringing examples we could critique
Lulu: I puked today, btw. Twice!

March 6 How to Respond to Reviews

Comments on being a reviewer

Kelley: I was able to pick up on things that I had missed when I was reading it in class to give edits, a reviewer's mindset is focused more on the bigger picture!
Jacob: Jake's paper was great! It's cool seeing how other people structure their results and methods sections
Hollis: I liked having more time to read the paper. It gave me time to actually think about the content rather than critiquing grammar. Jacob did a great job of making it easy to understand!

Erin: I liked reading Kelley's draft :) Reading parts of Kelley draft made me realise I forgot to include some stuff
Sara: I enjoyed thinking a little deeper about the whole picture of the paper, and made me reflect on my own writing as well
Jake: Having to read the paper initially, and then again while reviewing helped me better understand the content, and allowed me to better review the paper (ojala 👋)
Ruth: It was hard to do 6 of them! My ADHD adaptation is to take one at a time with me on dog walks. Apologies for the handwriting. I also dictate some of my comments on dog walks. Apologies for typos.
Ruth: When I write a review, I think bigger than when just reading text.

How to write a response to reviews

Electronic examples of my recent experience:
Soil respiration, almost done
Uncertainty in tree allometry
Root growth (MELNHE)
Uncertainty in forest inventory (FIA) ←100 review comments!

To whom is your response addressed? The Associate Editor will decide whether to

- Associate editor decides if you can accept it or if it needs reviews, or if it gets rejected!
    - It 9.99/10 you will have to review
    - Accepted if you address these things, or your paper will be reconsidered
- Goal for response document is to be so good that you don't need a second round of reviews
- Addressed to associate editor BUT be respectful to reviewers!

What to do if you disagree with a suggestion?

- Do not make any changes that do not improve your paper!

What if you don't understand the reviewer?
Make sure the AE can understand the review comment. You may have to quote the relevant material. Your goal is for the AE to be able to make a decision without referring to your paper–or worse, sending it back to the reviewers.

Document your changes: You can use colors, strikethrough for deleted text, color or underline for added text.

Don't just say "that won't work", try doing what they want, then try it, then show why it won't work

We need to know if you changed something or not. If the reviewer asked a clarifying question, make edits to your paper so your reader will not need those clarifying questions

The AE will feel satisfied everytime you tell them you made a change to the paper in response

to the reviewer

Make your response document as short as possible, include the improved quote from the paper

You need to respond to every comment the reviewer made in your response

Don't be defensive in your responses

Start by thanking AE and reviewers

What if two reviewers disagree?

What not to do: Examples from last year

- Don't tell, show what you did.
- Don't be rude
- Do not explain why you did something wrong – it will sound like you are defending it and are not going to change it. Just let the AE know what you did to improve it.
-

Show what you did.

- 93 Was this an automated search?

I did this manually.
(was there a change to the manuscirpt?)

•The Methods section should start with the site description and then chronologically describe what was done. Litter collection, bag assembly, bag deployment, etc.

I have reorder the methods to match your recommendations in the marked PDF. Let me know what you think. (Should I paste the sections into the review?)

- Don't repeat yourself by first describing what you did and then showing what you did.

48 You don't need the exact coordinates, and I don't think we would even want to give the exact coordinates out. 44N and 71W is close enough. Same with the HB lab described later.

Got it! ~~I corrected the coordinates to be more vague. It probably wouldn't be great to disclose the exact coordinates.~~ "Leaf litter was collected and studied from four tree stands from the White Mountains of New Hampshire within Bartlett Experimental Forest (44°N 71°W) (Figure 1)."

Show what you replaced. You want the AE to accept your paper without going back to the document to understand your improvements.

-If I'm right about your best results, then you should put more emphasis, in your Introduction

and Objectives, on the question of how species differ in the timing of leaf senescence. I don't know the literature on this topic and can't be sure that this contribution is unique (the NxP addition is unique for this forest type). I think there are tropical studies that sort litterfall at regular intervals year round, which would have a similar approach to ours at characterizing litterfall by species. In seasonally deciduous forest types like ours, it's common to collect litterfall for mass just once a year. Check for papers by Jared DeForest, he has a P addition experiment in Ohio that might be relevant.

*In regard to your review, I added some points focusing on the species level analysis in Introduction and Objectives. I found the information on N*P was limited (have some papers cited for N, P, C but not the interactions). Also, there are few findings related to species and environmental variables, mostly in tropical regions. Those provide us evidence that there is something to analyze.*

Jared's Paper: Yes, I looked through his recent 3 papers and cited one which suggests P action can increase the availability nitrogen-like elements.

90 Why not continuous samples? Are you potentially missing any valuable information by not having data between depths of 10-30 cm?

Added

"Shallow cores were collected September 22 and October 10, 2010 using a 2" diameter polyvinyl chloride core hammered 10 cm into the soil after removing the Oi (litter layer). Deep cores were measured 30-50 cm from the top of the mineral soil, as is conventional; this does not correspond to the depths reported for shallow cores."

In some cases, this means that you have to explain what the reviewer's comment was about.

If the reviewer makes multiple points that require multiple answers, put your comments after each of the points.

Did not break up larger comment into multiple points:

How did you identify germinants? I bet this is hard and deserves some description. Were you able to identify all of them? Can you address the error rate is in identifying germinants? This would be easy to test genetically. I don't know how else to test it. We are describing error rate in species ID in FIA by comparing the results of the field crews to the QC crews. Did you have expert guidance?

In combination with an expert's guidance, we also had a photo library of seed germinants

compiled by a former intern. This is how most germinants were identified. ~~In case that we were unable to identify germinants at the sapling phase, we let them grow until we could ID based on inflorescences, making the error rate slim as we are able to key on adult plants.~~ I have made it more clear in the methods section on how plants were identified in the shadehouse. The new section reads:

Improve on these bad responses

L307: Higher than what? This may not be the best way to describe these data.

Revision: L307: it was revised. This does not allow the AE to evaluate the adequacy of your change.

L377: How is "resettlement" of microbes different from re-colonization?

Responses: They were two invasion types of cellulose decomposing microbes and basidiomycetes. This doesn't address the question!

171 maybe the problem here is just the definite article. It sounds as though we are supposed to know what these freshly cut profile walls are. Explaining chronologically what you did usually works. Response:

1) The more detailed information for method of soil samples were added.

2) We conducted field work from May to October 2010.

I don't think "output" is a verb. "Put out" is the source of the noun "output."
Response: **Thank you. We believe that "output" is commonly used as a verb, but we do find after reviewing this comment that its use as a verb is deprecated in formal writing. We have revised the instances of its use as a verb accordingly (e.g., "Catchments with large, flat and intermittently wet topographic features generated less NO_3^- and ammonium (NH_4^+) output but more dissolved organic nitrogen (DON) output than catchments with little or no wetlands").**

Page 16, line 39 to 45 – I cannot understand the interpretation of these p values. How does p = 0.94 suggest that "Plot-scale treatments explained more variation in root ingrowth than did core-scale treatments …"?

> Sentence in question is: "Plot-scale treatments explained more variation in root ingrowth than did core-scale treatments (p = 0.94), the two stands (p = 0.11), or the interaction between plot-level and core-level treatment (p = 0.16)."

Thank you for catching that. We meant the “p=0.94” for core-scale treatments. We cleared the ambiguity of the texts by addinged again the missing p-value for the plot-scale treatments (p=0.04).

Exit cards

Ruth: Thanks once again for providing the content for our class.
Jacob: Thanks for the helpful reviews! Definitely have a few things to fix, but it’s nice having an outside perspective on my writing.

March 4 Drafts of Discussions

How can we help you?

Lulu: I’m fine in my corner. I had a big outing yesterday!
Hollis: I have a very **rough** first draft (no citations, just general flow). Let me know if/what I should add. I also haven’t added a summary or conclusions section yet. 📜
Jacob: Discussion section is most certainly missing something, or many things.
Sara: I feel as though my discussion section is lacking… something. Maybe suggestions for what else to include.
Jake: I tried to focus on two of my variables and I still only feel half-way good about what I have right now… Would appreciate feedback on the organization of what I have so far [:
Erin: I would appreciate any and all feedback!
Kelley: My discussion is very much a draft. I could use help with sentence structure and general organization of ideas. I didn’t spend time making it sound eloquent
Ruth: I used a different approach to getting “around the room” electronically: I gave one comment on each paper and went around as many times as I could. If I didn’t get to something important in your Discussion, please tap me, now or later!

Exit cards

Lulu:
Hollis: I think deadlines are understated and I appreciate the weekly guidelines. Look forward to adding to the discussion!
Jacob: Thanks for the great comments! Need to think more about the context and definitely need to look at the power & effect of other studies.
Sara: Thanks for the comments and suggestions!
Jake: Great discussion discussion! I appreciate the comments and ideas that y’all shared!
Erin: Thanks for the comments. Unfortunately, I am brain dead after spending the entire day in the lab. I have to go back after class 😭
Kelley: Love comments and cake. All around a great class!
Ruth: The cake was perfect! Please provide the link to the recipe.

Feb 28 Statistical Party

Can a reader correctly write your model statement from the narrative in your paper?

5 minutes to guess the model statement from the paper (next time, don't assign the same reviewers as for the First Review!)
Improve your narrative description, try again

What else can we help you with?

Kelley: I could add in some edits to my stats section and then plug away at the discussion!
Erin: I could use the time to write my discussion 🥸
Jake: I could use a work period 🤫
Sara: Fixing the proportion size on the stacked bar graphs, also general working time
Jacob: Working on discussion.
Hollis: I could work on my discussion, but I also have a new results section that I'm struggling with not making it sound redundant or include discussion points.
Lulu: Don't stop petting me!
Ruth: I also want to ask about synchrony and timeline of First Reviews

Exit cards

Lulu:
Hollis:
Jacob:
Sara: Agree with Erin :)
Jake: *LOVE* stats, very fun
Erin: Having time to work on my discussion was really nice :)
Kelley:
Ruth:

Fab✨ 26 Discussions (examples)

What should a Discussion section do?

Interpreting what the results mean
- Do the results agree with our hypotheses?

Exceptions or problems in results
Implications to address the question in your problem statement
    -why is this important?
Comparison to other studies, agreement or disagreement
Limitations of approach

Future directions
Summary or conclusions

Examples

FOR694 Spring 2024 - Discussion and Conclusions
Discussion examples we like 🙂: Kelley's, Erin's,

- You dont want to write too many sentences in a row that are too similar to the results section
- Consider using subheadings!
- You want your reader to understand the paper by jumping right into the discussion
    - Aspire to not repeat the results exactly, but you can still understand what they were by reading the discussion
    - "We see two possible reasons for result A"

- Using data from the same fert exp isn't comparing to literature because its the same study,
- don't just say "my hypothesis" we need to know what hypothesis you are talking about
- kelley's paper has a good example of mentioning hypothesis, sara's paper shows a bad example
- be judicious in use of surprising phrases like, "jumpstart" and "kickstart"
- make sure your comparison of other studies adds value to the paper, you must compare and interpret! Does your study agree with theirs? Why is yours different?
- gives clues to your experimental design in case your reader starts in the discussion!
-highlight the novelty/importance of your study

Exit cards

Lulu: Snoozing. Both Fern and Kelley took me out for walks today!
Erin: Eating in the lab helps keep me awake 😴
Hollis: Don't cite 30+ papers without really hammering home the novelty of the study (or at all).
Sara: Thinking too hard about what to write here, discussing discussions was helpful
Jake: I think the coffee + sugar combo killed my attention span I needa go for a run or smthing
Jacob: *cough* 🤒
Kelley: helpful to go through structures of discussions before drafting my own!
Ruth: Thank you for providing all the materials needed for today's class. As usual!

Feb 21 How to be a Peer Reviewer

Authors: How did it go?

Jacob: Results are going well. Forgot the climate data for VA and PA :(
Hollis: There's a section or two I can't do until I speak with the other co-authors tomorrow. Other than that it seemed fine! ✍️
Jake: I'm mostly happy with it 🥹 Definitely a first draft

Erin: 🫠 I feel pretty good (just melting a little). I'm sure there is room to improve so I'm looking forward to comments
Sara: Not happy with it (yet) :\
Lulu: I was trying to tell you guys that I wanted to go out! This time I'm good, I had a walk and a pee and a poo just an hour or two ago.
Kelley: couldn't get page numbers to print!! For the writing, it can still be improved, I

Review Criteria

Is it original? Is it important?
Is it concisely and clearly written? Do you have any suggestions to improve the writing?
Should any portions of the paper be expanded, condensed, combined, or deleted?
Can it be understood by a professional not in your speciality?
Is it logically organized?
Are the methods appropriate for this study? (statistical analysis, too)
Are the methods sufficiently detailed to allow replication of the experiment? (statistical analysis, too)
Are terms adequately defined?
Are calculations accurate?
Are only SI units used?
Are all the figures and tables necessary?
Do the tables and figures support the results section?
Should any materials be moved to digital repositories?

Relevant when we get to the second review:
Are all and only pertinent references cited? Is the literature review up to date?
Are the conclusions supported by the results? Is conjecture distinguished from fact?
Is the paper appropriate for the target journal

How to write a review

What did we like about it!
The Associate Editor will receive the reviews.

- The associate editor will not read your specific comments in the margins of the paper
- The editor needs to know the important things about this paper so they can decide whether to accept or reject the paper
- The major points you feel passionate about should be made clear to the editor up front, not buried with line-numbered suggestions.

Start with a summary of the paper

- Informs author whether the reader understands their study

Distinguish general from specific comments.
Specific comments should be in the order encountered–line numbers help.
Suggest helpful resources if possible

- Be helpful and specific! Give specific instructions for improvement
- If something isn't clear, making a guess can help the author understand the problem.

Line number references

Tone

- Be nice
- Ask questions that give authors the benefit of the doubt

Use positive language

Exit cards

Jake: Necesito dormir 🌛I'm also glad to be done with the methods and results for now
Erin: I'm relieved that I'm done with the methods and results section (for now). Time to work on my soils paper!
Kelley: I'm excited to live my new life as a reviewer! I've edited hollis's paper the last two classes so I hope I can conjure up some fresh edits
Lulu: I am hanging out at the edge of the room, doesn't anyone understand me?
Sara: I think being a reviewer will help me think about the writing of my own paper
Hollis: Looking forward to discussing the results tomorrow!
Ruth: ADHD: two orange dots on the wall! I'm sorry I couldn't suppress that one, it was not relevant to our topic for today (or any topic)
Jacob: Getting to see reviewer criteria is super helpful for writing a review and for writing a paper!

Feb 19 How can we help you?

Erin: I have new graphs! Also, how do you get climate data from NOAA? But any feedback is greatly appreciated. Personal feelings: 🤠 (yee haw)
Jacob: Brand new results section! Best way to word statistical results. Confusing tukey's means results
Kelley: I want help with the nutrient mineralization/immobilization and effect size section of my results. I changed a lot! Each paragraph is mostly the same format for each element. Is this good for reducing confusion or is it boring and repetitive?. Start line 233

Ruth: be repetitive! Go for clarity!

Jake: I have redone my methods section! Today, I might benefit from a work day more than anything… Personal feelings about draft: 🥲(smile thru the pain)
Hollis: For my Hubbard Brook inclined friends: does W9 contain wetlands? For the rest of the stuff, I just need work time and to talk to my co-authors. Person feelings on the draft = 🤯😶
Scenarios Line 77.
Sara: Currently re-working the results section so just comments about wording and what to be included would be helpful

Assigning reviewers

Kelley reviews Hollis reviews Jacob reviews Jake reviews Sara reviews Erin reviews Kelley.

5 people got their 1st choice!

Exit cards

Jake: Tiempo de salir and continue writing 🙃
Erin: Thanks for the feedback! I'm excited to review Kelley's draft!
Kelley: I'm a fan of groups of 3. I like seeing everyone's paper get so much better overtime!
Lulu: I got to go to the Drake Lab–it was scary crossing the floor.
Sara: I have a lot to work on before Wednesday but I think I can get it done!
Hollis: I appreciate the extra eyes on some of the harder parts of the paper!
Ruth: I spend time on unimportant details when I open an electronic document, sorry I didn't get to more big topics–paper next time, yay!
Jacob: Thanks for the great feedback y'all! See y'all for drafts on Wednesday!

Feb 14 Difficult section

How's it going? (Feb 21 draft) What can we help you with today?

Erin: I recognize that the BBD paper is kinda a lot and new for everyone, so I included some stuff for my N fixation paper if that is more suitable for class.

N Fixation Paper

- Methods:
    - What should I include in my site description table?
    - Data analysis needs help 😿
    - 3.5 pages (double spaced)
- Results: General review
    - 1 page (double spaced)

or

BBD_Manuscript_Cornell.docx - I've put this paper on the back burner for way too long.

- Interpretation of results: Is it easy to understand the results I'm trying to convey?
    - You'll probably want to read the abstract and methods before you read the results
    - 4 pages of reading (double spaced)

Kelley: what I need help with

- Should my water content graph even be color coded?
- Help me with my captions
- How can I redesign my graphs to include stand? Crayola crayon perhaps?
- If I report rates, should I state a rate for 2021 and 2023, or just one rate, averaging across the entire time period?

Sara (what I want help with): Results
-Focus on total fungal structure count or on proportion of structures per intersection?
-Better summarize effects of variables without being repetitive

-Which of the figures included are important? All? Some?

Jake: what I want help with

- Methods (are these methods thorough enough?)
    - Long-term Foliar
    - One-time Sugar Maple
    - Long-term Soil Resin
    - **Stats** (if you can put more energy here, please do!)
- Results (are these results resulting?)
    - Tree Growth
    - Sugar Maple Water and Foliar

Hollis: I recently added a new modeling scenario to my study. So, I've kinda had to rip apart my methods and results sections.

- Methods section:
    - Line 79 - 94: Section detailing modeling scenarios. This is the big section I've pulled apart.
- Results section:
    - Line 113: New diagram that may or may not be helpful. Compare it to the figure above it (also labeled Figure 2)
    - Line 129 - 139: New paragraph detailing new modeling scenario

Jacob: New Figure and Table type in results section (At the end, past other section)
Should I seperate them out by year? State? Condition?
Aggregating tables by year or naur?

Assigning reviewers

Kelley made a google form to choose whose paper you want to review. It should take 10 seconds, please fill it out whenever you can!

Exit cards

Ruth: I'm glad I looked at all your papers! Did you like the 2 rooms, groups of 3?
Jacob: I got some great feedback, thank y'all! Results is my least favorite section to write so I'm glad we got to go over a trouble section
Erin: Thank you for all the help! I think I got good feedback. I'll bring in a baked good cause having a picnic in class is fun 🍰🤠 I like groups of 3!
Jake: Thanks all! Feedback has been insightful
Kelley: I like using what we learned the last class about strong subjects and verbs to help improve people's sentences, even my own!
Hollis: Maybe I can shoe in the two models by next week. Picking all the figures might be the struggle. It was helpful to work through this though!

Sara: I need to change the wording in my statistics section, and say why the way I am interpreting the data makes sense.
Lulu: I had 2 shots at the vet yesterday and I didn't want to move at all today, not even to get in my backpack to come to campus by bicycle.

Feb 12 Writing Exercise

Book checkout:

Erin: The Practical Stylist - Sheridan Baker
Jacob: A Manual for Writers - Kate L Turabian

Recommendations

Jacob: Writing Papers in the Biological Sciences - Victoria Mcmillan
Kelley: How to Write a Scientific Paper: An Academic Self-Help Guide for PhD Students by Jari Saramäki

Advice

Jacob: Just start typing. Sometimes it then comes together.
Sara: I feel rusty. I'm trying to remember how I used to do it.
Kelley: I find the Saramaki book useful. Getting stuff onto the page makes the process easier.
Hollis: spend one day reading papers, then summarize the next day otherwise you are copying too closely what the author said
Ruth: Loves writing, but lacks focus. Helps to have an hour a week to meet with co-authors.
Erin enjoys writing, doesn't feel she's great at it. Needs to spend big blocks of time–at least half a day. It takes time to get in the mindset. When I'm sick is a good time!
Jake: enjoys writing, but does most of writing in the morning. Creates an environment to get their best writing done

Smith and Brown

Paragraphs are helpful. Active voice saves words and uses stronger verbs. Brown used run on sentences, subject was not clear
Brown's had runons, B

Bown's had repitition and organization issues
Smith uses different transition words, easier to follow
Hints: helping verbs are weak

- Subject verbs like "it is" is weak! Use sentence structures that allow for stronger subjects and verbs!
- The subject and verb should be close to each other in the sentence, ideally at the front
- "Findings suggest" is not the point

- Don't write "researcher found" that should be a citation
- If a colon is followed by a complete sentence, capitalize the first word
- Topic changes need to be clear very early in the sentence
-

Can we help improve some of your sentences?

Kelley: Mineralization or immobilization rates were determined by calculating percent change in concentration of each element as ((final - initial) / initial) x 100.

- "Were determined" is weak, but the subject is strong. I could improve the verb by saying "we calculated mineralization / immmobilization rates…" but that weakens the subject from "rates" to "we". Is it more valuable to have a strong verb or strong subject?

Kelley: Additionally, plot nested in stand, nested in site was also included as a random effect.

- Trying to describe my linear mixed model
- Full description of model: To determine treatment effects, two linear mixed models were run per element: one evaluating the impacts of N and P addition to the leaves, and one model evaluating the impacts of N and P addition to the soil. In both models, the fixed effects were the addition of N (yes/no), the addition of P (yes/no), and stand age. The random effects were percent water, number of days decomposing. Additionally, plot nested in stand, nested in site was also included as a random effect.
- Repeated measures linear mixed effects models were run for each element (soil and leaves). Fixed effects for the models were N addition, P addition, and stand age; while random effects were moisture content and sampling date.

Sara 1a: As the microscope's field of view traveled down the line of each interval, the structures passing through the crosshair were noted. (original wording)

Sara 1: Structures were noted as they intersected the crosshair along each transect.

- some improvement from original, still not great

Sara 2a: Percent colonization was calculated by taking the number of instances in which a (previously defined) fungal structure came in contact with the microscope's crosshair and dividing it by the number of total root strands to pass through the crosshair.

-

Sara 2b: Fungal colonization (percent) was calculated by dividing the number of fungal structures by the total number of fine roots that had passed through the area of the crosshair during slide inspection.

-

Jake: Following rinsing, strips for NH_4 and NO_3 were soaked in 1 M NaCl for three 24-hour intervals and re-rinsed with deionized water and 5% HCl between each soak.

- Jake: Following rinsing, strips for NH_4 and NO_3 were soaked in 1 M NaCl for three 24-hour intervals, re-rinsing with deionized water and 5% HCl between each soak.

- Strips for … were soaked and then … rinsed with …

Prior to deployment, strips were rinsed with deionized water and 5% HCl. Strips for NH_4 and NO_3 were soaked in 1 M NaCl for three 24-hour intervals and re-rinsed with deionized water and 5% HCl between each soak. Strips for PO_4 were converted to bicarbonate by shaking for four 10-minute intervals in 0.5 M $NaHCO_3$ and re-rinsed with deionized water and 5% HCl between shaking.

NO_3 were (then?) soaked in 1 M NaCal for three 24-hour intervals and rinsed (again), first with deionized water then and 5% HCl between each soak.

Jake: From the sugar maple individuals sampled for sap flow, the 2 trees with the highest average sugar concentrations and the 2 trees with the lowest average sugar concentrations were chosen for foliar collection and gas exchange measurements.

- Sugar maples with the two highest and two lowest average sugar concentrations were chosen for foliar collection and gas exchange measurements

Jacob: There were no significant differences between the height of transgenic, backcrossed hybrid, and wild-type trees, while stronghold and commercial hybrids grew significantly taller (80.2cm and 96.1cm respectively)

- Height of stronghold (80.2 cm add SE) and commercial hybrids (96.1 cm) were taller than other tree types ($P<0.05$), with no difference observed between the other tree types ($p>0.05$ report lowest, with greater than equal sign for it.).Stronghold and commercial hybrid trees grew significantly taller than their transgenic, backcrossed hybrid, and wild-type counterparts, with an increase of 80.2 and 96.1 cm respectively. Transgenic, backcrossed hybrid, and wild-type trees had no significant difference between groups.

Erin: The harvest years of young stands range from 1988 to 1990, and their overstory is primarily pin cherry (*Prunus pensylvanica* L.f.), white birch (*Betula papyrifera* Marsh.), and yellow birch (*Betula alleghaniensis* Britton).

- Erin: I repeat this sentence structure for 2 other age classes. I need to make this portion of my site description more precise.
- Young stands with an overstory of pin cherry (*Prunus pensylvanica* L.f.), white birch (*Betula papyrifera* Marsh.), and yellow birch (*Betula alleghaniensis* Britton) were harvested between the years 1988 and 1990.

Exit cards

Ruth: Was this useful? The year this class was taught on zoom, we did some visiting of people's papers to work on helping with writing. We can schedule time for some form of writing help in future sessions if you want to.

Jacob: Very helpful! Thinking about how to structure my sentences made it easier to think of sentences to write

Erin: This was really helpful! I feel like I get better at the writing exercise each time I do it. Too bad I only do it once a year…
Jake: I found this really useful and fun!
Kelley: this was kinda fun haha! I agree its easier to edit other people's words than my own. Its like solving a puzzle trying to write sentences with strong verbs and subjects, close together!
Hollis: I think one of the things I struggle with is not seeing the oddities in my writing. I don't think that's fixed, but I do think I have some things to look into.
Sara: This was helpful for writing!

Feb 7 Methods

How can we help you?

Kelley: the data analysis section in general, does it make sense to have the equations written like that, also I made a couple comments on a few sentences that sound bad
Erin: I adapted my methods from my proposal? Idk if I gave too much info
Jake: Do I have enough info or not enough? I'm trying to aggregate methods from several papers and don't want it to be too long!
Hollis: Site description! They're pretty pitiful.
Sara: Not sure I am using the best stats/analysis methods, so input on that would be great
Jacob: Anything missing in site description/establishment or climate info

Erin's notes for Hollis: Harrington - Machine Learning.pdf
Erin's notes for Jacob: Paper.pdf

Exit cards

Jacob: Thanks for the great suggestions y'all! Forgot to put a lot of info into my methods, like describing slenderness calculations.
Ruth: Groups were good at optimizing their use of time; coordinating across the two rooms was tough. Use walkie-talkies (i.e. phones on bluetooth speakers)? I think next time we'll tell both groups to budget for a longer period of time.
Sara: I need to investigate to get more details for methodology in which I didn't participate
Hollis: Everyone has great ideas for site descriptions. It helped seeing them all!
Erin: Thank you for all the helpful feedback! Looking forward to the intros and discussions! I liked the two groups of 3 and then groups of 2 after
Kelley: One important way to split into groups is how long people's papers are, shorter paper pairs
36 with longer papers!
Jake: Thanks for the comments and feedback! Very helpful <3

Feb 5 Choosing your Journal

Paste your answers to the exercise here.

Sara: here is a link, it's a little long to paste here
Hollis: here is my link. I can copy them into the doc during class if you'd prefer.
Kelley: here is my link
Erin: my link :)
Jake: here
Jacob: Journal

Factors to consider (and how to evaluate them)

Audience: from your knowledge of the paper, published scope and aim, parent organization
Relevance of subject matter: see above, plus: which journals do you cite, which journals published related work
Opinions of coauthors (ask them)
Prestige: Impact factor (journal website),
Acceptance rate: these don't differ as much as you might expect, presumably because authors are making good decisions about where to send their papers based on quality
Cost: with or without open access. Journal website.
Author blinding: journal website.
Legitimacy: list of "predatory" journals
Time to publication: some journals give statistics. You can see dates on articles–3 months is normal from submission to first decision.

What

Name, publisher, length of text, length of abstract, no of figs/tables, page charges, required sections, time to publication, impact factor, acceptance rate
Spreadsheet

Exit cards

Kelley: its cool to see the different requirements for papers! Having never published, all this was pretty new to me so I learned a lot today!
Sara: I have to figure out how much to describe in methods vs citing another method
Hollis: Today's discussion was a nice overview before meeting with my co-authors.
Jake: Learned a lot about different journals. Tengo dolor de me stummy
Erin: How do I convince my committee that I should publish in Nature?
Jacob: Trying to find a good balance between journal scope, impact factor, and likelihood of acceptance

Jan 31 Results

Electronic only, and Erin will scribble on a pdf.

How can we help you?

Sara: I would like some suggestions of what to include/not include in results for figures
Jake: I'm not sure if I've included every trend in the data, if you notice something in a referenced figure that isn't in the text, please let me know! Think I got all the significant stuff.
Erin: How should I organize my results? I always struggle writing my results, so any feedback is greatly appreciated!
Jacob: Which tables to include, and where can I streamline information
Ruth: QUERCA Survey paper will be submitted on Friday or early next week. I hope you don't see anything horribly wrong with it. There was a lot of stuff in the Discussion that I thought was Results (don't tell Brett Butler). So maybe check whether you think any of it should move back (the last section, answers to open-ended questions–why would those be in Discussion?)
Hollis: I have many thoughts and questions. Most boil down to "I'm drowning in data, how do I swim?". There's a checklist at the top of my results and comments throughout!
Kelley: I wasn't sure what to include in the captions of my figures/ titles of my tables and what should be in the results text. I don't want to repeat myself, but want I do want to highlight my main findings with the figures
Lulu: pet me!

Exit Cards

Sara: My results still don't seem complete to me… I have to go back over it
Jake: Nice job everyone! Thanks for the feedback!
Erin: Thank you for all the helpful feedback! Glad you guys caught my coding error. Now my graph has color!
Jacob: Great job y'all, really cool figures and results sections. I definitely need to work on clarity and showing proper tables and wording.
Ruth:
Hollis: Not drowning in data anymore thanks to the editing lifeline!
Kelley: Again, thank you everyone! Lots of edits to make my results better. I need to improve my figure captions and work on not stating statistics, but trends followed by a p value
Lulu:

Jan 29 Outline

Do you use outlines, and if so, how?

Hollis: Yes, I use the bulleted format when writing the paper, so that things can be rearranged easily
Jake: I just start writing. The abstract serves as an outline for me.
Sara: They help me organize what information should go together.
Ruth: The rescue retrospective outline. For when you write first and then realize that you are lacking in organization.
Erin: The Intro gets a funnel outline, and the Discussion. Methods have an established sequence, so it's not as important.

Kelley: I like them, but I still don't use them as much as I should. Sometimes I write them as I go.
Jacob: They help me establish a good flow. And they give me a place to put notes so I don't forget things.

What you want help with?

Jake: Structure for methods and results: Does this order make sense?
Erin: I'm open to any comments/help
Jacob: Flow and potential redundancy?
Hollis: General structure and organization. The ideas are usually there, but the order is… odd.
Kelley: Introduction, phrasing the importance of the study etc
Lulu: I want to go out and pee. 💛
Ruth: Okay, I will take you in a minute

Exit Cards

Sara: I have to make sure the figures reflect the objectives for the results section
Jake: Sorry for the bare bones outline; it made sense to me 😅 Thanks for the suggestions
Erin: Thank you for the feedback! Next class is results… oh boy! This is my least favorite part 🌞
Jacob: Great suggestions y'all. Address survivorship, metrics of blight tolerance, and include light metrics from canopy treatment
Ruth: It's okay if your results on Wednesday are not the final version! And if you are missing some results, write the sentences that will report them when you have them.
Hollis: I was very impressed by all of the abstracts and disappointed I forgot about the getting started exercise.
Kelley: Thank you everyone! My paper gets better and better with each class!
Lulu: I enjoyed going around the table! Twice!

Jan 24 Figures and Tables

Next class: Monday review outline

- Example outlines on the FOR 694 website

Next wednesday: reviewing your results section!

Figure Festival

What do you want help with?

Kelley brought 2 versions of her mass loss graphs! This will affect her other graphs.

- Is the information easy to glean off of these graphs?

Hollis: Map layout and boxplot data overload
Jake: has one figure for each result. Should these be combined? Is there a better way than box plots? Is the table necessary?

Jacob: Figure design and legibility. Table design. Information for each table/figure
Erin: Should I show the raw data or use barcharts? Thinking about turning my table into a figure
Sara: has some things I want to show in figures, but wasn't able to figure it out. Some figures can probably be reorganized

Lessons learned

Useful advice from previous class sessions

Exit Cards

Sara: I need to verify units to use in this paper so that it can be more applicable to other studies
Jake: I enjoyed seeing everyones' figures today! Y'all are cool!
Erin: Thank you for all the feedback! Time to dive back into the R hole
Jacob: Appreciate the feedback. Definitely gave me a different perspective on what I should be doing
Ruth: I liked passing to the right (paper graphs) and seeing other people's comments. We do see other people's comments electronically, too.
Hollis: Dora knows alot about maps, I do not.
Kelley: everyone's graphs are beautiful! I thought people would be more strongly favoring my scatterplot but there seemed to be some people who liked the model? Its cool just shows less info.
Lulu: I want to go outside

Jan 22 Getting Started Exercise

What's hard about your paper? How can we help you?

Jake: I have a lot of stuff. What's important to include?
Erin: I struggle to separate Results from Conclusions
Hollis: The conclusions are "it doesn't work"
Sara: Working backwards, because I don't have the data yet. New analyses may be added.
Kelley: My conclusions could be improved.
Jacob: Is my conclusion on topic and related to the question?

Lessons Learned

Erin is excited to think about P limitation
Jacob: needing to step back and explain things that my journal audience doesn't know
Think about implications, for your Conclusions–too easy to restate Results

Evaluation: Paper or Electronic?

Up Next

Figures and tables- bring 1 printed out copy for everyone to pass around

- There will also be a slide show toput figures on

Exit Cards

Sara: I need to get the correct data file so I can look at/ understand/ make more figures in R. Thanks for the feedback on the Getting Started exercise!
Jake: I enjoyed getting to hear everyone's "abstract"! 🤠
Erin: Great session and great comments! I'll start transforming my getting started exercise into an abstract and soon it wil be perfect!
Jacob: It was cool getting to see all the different topics I usually wouldn't read. Learning to explain more and provide clear intro material
Ruth: I love the GSE class. Seeing all the papers in short order is so impressive.
Hollis: I need to have less tunnel vision on the results and think more of the broader impacts when it comes to conclusions.
Kelley: This was fun! I already knew about Erin's project, but it was fun to learn about Jacob's! I hope I gave good comments. (Erin: I think you did) Thank you everyone for the feedback!
Lulu: I enjoyed watching everyone walk around *woof*

Jan 17 Why Publish?

Timekeeper: Jacob Olichney

Introductions (paper you want to write, program you're in, etc)

Ruth- Ecosystem nutrient budgets on 3 sites, in the SRM department 29 years
Sara- Signs of mycorrhizae in brassica in CO subalpine sites.
Erin- free-living N fixation, how nutrient/substrates influence biogeochemistry
Jacob- SRM, Dr. Drake, Chestnut tree ecophysiology - differences in transgenic and non-transgenic trees
Hollis - Determining organic matter composition of throughfall and stem flow. Assessing machine learning models for stream sollute chemistry
Kelley - GPES, nitrogen and phosphorus impacts decomposition of sugar maple leaf litter
Shreyas- civil eng at SU,soils
Jake - SRM major, Ruth- advisor. Calcium impact, tree database

Why Publish?

Sara: Because nobody else is going to do it!
Jacob: helps your career! Looks good on your resume 😎
Erin: Novel information, extend knowledge!
Hollis - Grant publications, establishes expertise. Established common vernacular
Kelley - Small answers lead to larger meaning

Jake: improve writing skills.
Ruth: to articulate your ideas
Sara: to change the way people understand the world
Erin: It contributes to scientific dialogue
Jacob: it helps the publisher/journal
Kelley: makes new knowledge widely available
Jake: could be fun
Ruth: owe it to co-authors and researchers
Ruth: to save the world: environment, human health, management, other practices

Introductions to your topics

Intro to the Getting Started Exercise

Slides from an ESA workshop

Shall we do this on paper or electronically? Both: please print 2 copies AND link an electronic copy above by your name.
You have an answer, what is your question? This exercise helps you develop your question
Slide 9: start with number 3!
PRINT 2 COPIES, one for reviewer and one for ruth. Keep it to one page.

Getting started exercise on website

Review Syllabus and class web site (for assignments, rubrics)

Questions?

Exit Cards - write down thoughts after the class here (it can be anything)

Ruth: I learned about writing secretly in white! But also that people can accidentally get trapped writing in white.
Erin: I'm so excited! I like writing 🤠
Jake: Super excited to write another scientific paper. Also, I'm hungry… need food 😭
Sara: I need to review all of my materials, I haven't worked on this project for a while!
Hollis: I'm looking forward to working on organizing my writing in a better fashion.
Kelley: I want to revamp my figures and tables for NYSAF so getting that for wednesday is good

May 9: Steps to Publication

https://orcid.org/signin

Advice on response docs

Line 258: Should it be ‘management site’? So, record type and management site are the same?

All of the numbers in this figure refer to a management site, and a record type is a description of each management site. (AE might find this confusing)

April 20: Grant Proposals

What’s in a Proposal?

-

Reviews of proposals

RFPs (Requests for Proposals)

Author Updates

Reviewer Updates

April 17: Abstracts

Updates

Add Abstracts Here

What we expect to find in an Abstract

-

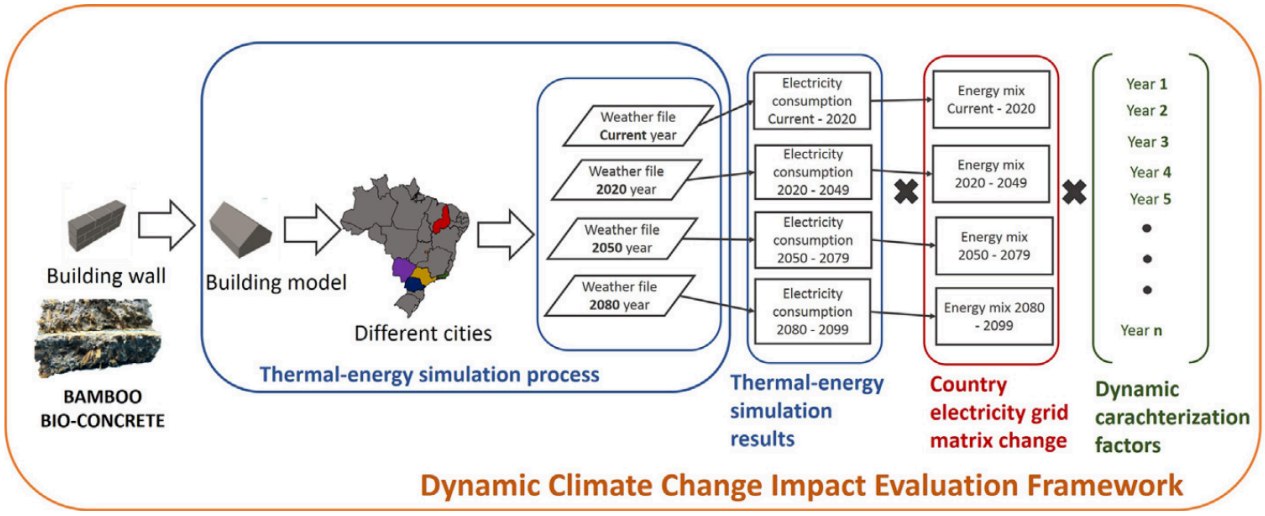
Graphical abstracts

https://mindthegraph.com/blog/create-effective-graphical-abstract/

Sahadat (example from intended journal): Examples: Graphical abstract (elsevier.com)

How to design an effective graphical abstract: the ultimate guide (animateyour.science)

GRAPHICAL ABSTRACT



Functional Ecology table of contents:
https://besjournals.onlinelibrary.wiley.com/toc/13652435/2023/37/4?campaign=woletoc

https://www.mdpi.com/1420-3049/21/9/1247

https://synapse.koreamed.org/articles/1516080790

-

Mar 23: what's next

https://forms.gle/Wt9QSpR1B24iyHba6 Google Form.

Link to Responses:
https://docs.google.com/forms/d/1iOAhTp9zmfboKZukJJdn_MjKo2RiN_alfwk-t0_F6uc/edit#responses

March 9 Responses to reviews

What was it like to be a reviewer?
Fate: I read it once without comments, once making comments, then I was surprised when I sat down to write about it.
Sahadat: I, too, thought it would be quicker than it was. I read it through first noting where I needed to make comments.
Dave: I thought I would read it through without a pen in hand, but then I thought it was

worthwhile to take notes, without going into too much detail, to come back to. Total 6 hours.
Jenna: I spent about 3 hours. Only in this class do I review things that are very much out of my field. I hope my comments made sense! I like doing this process. Now I really understand Sahadat's paper.
David: The process of reviewing is useful to the reader as well as the author.
Fate: I realized that my first reading was incomplete. I'm not a very good reader!
Jenna: I read it in the morning and stepped away from it (not counted in the 3 hours)
David: My brain can't handle reading it twice in a row.
It's useful to the author to know where a reader can go wrong, even if they understand it eventually.
Fresh off an unexpected nap…
We were handicapped by not having the Intro and Discussion.
No, you are not responsible for providing editorial services.

How to write your response document

Start with verbatim reviews
You will be required to respond to every comment. Some will be easier than others.
Be polite. Convey that you understand their point, especially if you disagree with it.
If sections will be removed or altered beyond recognition, don't bother with the minor edits on those.
If you respond without looking at your paper, you might be off target. It's easy to misunderstand a review comment out of context. Reacting without seeing the paper might be better for understanding what you didn't say.
You will need to refer to the line numbers in the version you submitted (the journal website has it).
What do you do when the reviewer is off base? Or asks for something that's not relevant.
"Instead," sounds good. "Yes, that would be great, but…"
You might include references to back up your point.
Demonstrate that you tried what they suggested if you want to show that it's not an improvement. Otherwise it sounds like "I don't feel like it." Make a good faith effort.
Responding to the reviewer: Respond inside the actual paper…edits in the paper are more valuable than those in the response to reviewers. Then document them in your review.
"Done."/"Fixed" You don't need to say much if you agree and implemented the suggestion.
Make sure it's clear whether you made a change or not.
If two reviewers have the same concern, on the second you may note that you "responded above"

How big a change is big to include verbatim:
https://docs.google.com/document/d/1CNe71mH6L1CTYBn6zDOKJQF7a5xgxmJMG8Z03lO5Q7s/edit

What not to do: Examples from last year

- Don’t tell, show what you did.
- Don't be rude
- Do not explain why you did something wrong – it will sound like you are defending it and are not going to change it. Just let the AE know what you did to improve it.
-

Show what you did.

- 93 Was this an automated search?

I did this manually.
(was there a change to the manuscirpt?)

•The Methods section should start with the site description and then chronologically describe what was done. Litter collection, bag assembly, bag deployment, etc.

I have reorder the methods to match your recommendations in the marked PDF. Let me know what you think. (Should I paste the sections into the review?)

- Don’t repeat yourself by first describing what you did and then showing what you did.

48 You don’t need the exact coordinates, and I don’t think we would even want to give the exact coordinates out. 44N and 71W is close enough. Same with the HB lab described later.

Got it! ~~I corrected the coordinates to be more vague. It probably wouldn’t be great to disclose the exact coordinates.~~ “Leaf litter was collected and studied from four tree stands from the White Mountains of New Hampshire within Bartlett Experimental Forest (44°N 71°W) (Figure 1).”

Show what you replaced. You want the AE to accept your paper without going back to the document to understand your improvements.

-If I’m right about your best results, then you should put more emphasis, in your Introduction and Objectives, on the question of how species differ in the timing of leaf senescence. I don’t know the literature on this topic and can’t be sure that this contribution is unique (the NxP addition is unique for this forest type). I think there are tropical studies that sort litterfall at regular intervals year round, which would have a similar approach to ours at characterizing litterfall by species. In seasonally deciduous forest types like ours, it’s common to collect litterfall for mass just once a year. Check for papers by Jared DeForest, he has a P addition experiment in Ohio that might be relevant.

*In regard to your review, I added some points focusing on the species level analysis in Introduction and Objectives. I found the information on N*P was limited (have some papers cited for N, P, C but not the interactions). Also, there are few findings related to species and environmental variables, mostly in tropical regions. Those provide us evidence that there is*

something to analyze.

Jared's Paper: Yes, I looked through his recent 3 papers and cited one which suggests P action can increase the availability nitrogen-like elements.

90 Why not continuous samples? Are you potentially missing any valuable information by not having data between depths of 10-30 cm?

Added

"Shallow cores were collected September 22 and October 10, 2010 using a 2" diameter polyvinyl chloride core hammered 10 cm into the soil after removing the Oi (litter layer). Deep cores were measured 30-50 cm from the top of the mineral soil, as is conventional; this does not correspond to the depths reported for shallow cores."

In some cases, this means that you have to explain what the reviewer's comment was about.

If the reviewer makes multiple points that require multiple answers, put your comments after each of the points.

Did not break up larger comment into multiple points:

How did you identify germinants? I bet this is hard and deserves some description. Were you able to identify all of them? Can you address the error rate is in identifying germinants? This would be easy to test genetically. I don't know how else to test it. We are describing error rate in species ID in FIA by comparing the results of the field crews to the QC crews. Did you have expert guidance?

In combination with an expert's guidance, we also had a photo library of seed germinants compiled by a former intern. This is how most germinants were identified. ~~In case that we were unable to identify germinants at the sapling phase, we let them grow until we could ID based on inflorescences, making the error rate slim as we are able to key on adult plants.~~ I have made it more clear in the methods section on how plants were identified in the shadehouse. The new section reads:

Improve on these bad responses

L307: Higher than what? This may not be the best way to describe these data.

Revision: L307: it was revised. This does not allow the AE to evaluate the adequacy of your change.

L377: How is “resettlement” of microbes different from re-colonization?

Responses: They were two invasion types of cellulose decomposing microbes and basidiomycetes.

This doesn’t address the question!

171 maybe the problem here is just the definite article. It sounds as though we are supposed to know what these freshly cut profile walls are. Explaining chronologically what you did usually works. Response:

1) The more detailed information for method of soil samples were added.

2) We conducted field work from May to October 2010.

I don’t think “output” is a verb. “Put out” is the source of the noun “output.”
Response: Thank you. We believe that “output” is commonly used as a verb, but we do find after reviewing this comment that its use as a verb is deprecated in formal writing. We have revised the instances of its use as a verb accordingly (e.g., “Catchments with large, flat and intermittently wet topographic features generated less NO_3^- and ammonium (NH_4^+) output but more dissolved organic nitrogen (DON) output than catchments with little or no wetlands”).

Page 16, line 39 to 45 – I cannot understand the interpretation of these p values. How does p = 0.94 suggest that “Plot-scale treatments explained more variation in root ingrowth than did core-scale treatments …”?

> Sentence in question is: “Plot-scale treatments explained more variation in root ingrowth than did core-scale treatments (p = 0.94), the two stands (p = 0.11), or the interaction between plot-level and core-level treatment (p = 0.16).”
>
> Thank you for catching that. We meant the “p=0.94” for core-scale treatments. We cleared the ambiguity of the texts by addinged again the missing p-value for the plot-scale treatments (p=0.04).

Topics we discussed:
Plagiarizing or quoting
Flags alerting us to problems or gaps
“have not been explored” “however, …misleading”

Feb 27 Discussions (Examples)

Here is a previous Google Slide deck
Here is ours!

1.

Feb 23

Any comments from authors to their reviewers?

Sahadat: We used ISO 14040 standard that guides specific framework for writing a 'LCA report'. That results in adding some sections like 'scope', system boundary' etc. So, might not be exactly the same scientific template that we do see for other sectors. A major revision has made according to comments.
Daddy: no baby yet, more news tomorrow.
Dave: I indicate that I recorded times for each method in my methods but they are not in results. I am thinking that's a discussion item…but am open to suggestions. Just so you don't think too much about why that's in the methods and not the results.
Fate: Some of the graphs are not quite there yet….struggling with R. But the basic ideas are implemented. I switched around some language, so it might be a tiny bit different than before. Oh also I know you suggested deleting the sub-headings. I probably will later, but there's actually a component I might be adding to results soon….so I'm leaving them in to keep the organizational infrastructure for now.
Jenna: I made the changes that were recommended, nothing else has really changed too much beyond what was expected to change.

Who reviews whom?

Sahadat and Jenna review each other. Fate and Dave review each other.

What should reviewers look for?

Length, is it concise? Is it too long? Is it too short, relative to what needs to be explained?
Can you identify unnecessary repetition that could be removed?
Is the paper logically organized? By section, within section, within paragraph?
Does the paper tell a clear story?
Are the figures and tables necessary and acceptable? Can you suggest any improvements?
Are the figure and table captions clear and concise?
Are the methods described clearly enough so that the work could be repeated by someone else?
Are the statistical methods clear and appropriate?

—IMPORTANT WHEN WE GET THE REST OF THE PAPER—

Do the objectives match with the results?
Does the discussion address the questions posed in the introduction?

—-IMPORTANT BUT NOT FOR THIS CLASS—-
Is the content suitable for this journal?
Is this worthy of publication?

What makes a good review?
Should you address your review to the authors or the editor? Probably to the author, but there is an opportunity to provide confidential comments to the editor
Start with a summary of the paper. Build credibility with the author and the editor.
Make sure you say what you like about it.
It's helpful to distinguish general comments from line-by-line suggestions.
A third section could be titled "Comments not worthy of a response"
You will also have an opportunity to return a marked-up manuscript to the author, but the editor will not look at it. Make sure everything that is important ends up in the review narrative.

How to improve the tone of your review
Asking questions is nicer than making statements about mistakes.
Maybe I didn't understand…
Be specific in your comments.
Use positive language. Say what would be better rather than what's bad about it.
Don't use all caps!

Exit cards?

Feb 20 last feedback before submitting for first review

What do you want help with?

Fate is still working on his workflow diagram (this part will be quick). Also in "paralysis mode", needs help with what requires more explanation. Start at the back.
David: I had a good session reworking my methods over the last 2 days and I'm 30% through my results. If we had time at the end, the comparison of methods part is where I could use some feedback.
Jenna: I have implemented the changes you suggested, but I want to improve the writing, as discussed at our last session.
Sahadat: I have revised the methodology part, I hope I have improved the writing. You could help me identify where I could still make improvement.

Who reviews whom and how:

Who wants paper: Ruth. Bring one copy on paper (print on scrap paper if possible).
Continuous line numbers and double spacing.

Topics for discussion

Hyphenate compound modifiers.
Consider splitting multiple ideas into multiple sentences.
Paralysis mode: How to know where to start when there is so much to be done.
Consider subheadings–you may not need them after you get organized.

Exit cards

Ruth: I feel so much more relaxed with a small class. I feel confident that we can give people what they need. Maybe I should cap the class size at 4! Though it's kind of nice when there are more people you can swap with.
Jenna: Thank you everyone for the feedback!

Feb 16 Figures, Tables, and Supplemental Information

What do you want help with?

David: Figures at the top of my Outline doc:
Fate: Has some highlighted Figures (flowchart), inside the "working document" file. Contingency table of change in cover vs change of area. Search "Figure XXX" ignore captions.
Jenna: New paper - dissertation chapter. Still working on the analysis. Don't know the best way to show the results. 6 treatments, 6 species, lots of models. Showing 3 prototypes of what I can do. If the result isn't significant, do I need to show a graph of it?

Topics we discussed

Jenna: Should I show figures where the patterns were not significant?
David: Pointing out patterns in figure captions is unconventional, but might be effective.
Value of brevity

Exit cards

Jenna: This conversation was very helpful for me in terms of getting clarity on what figures I should include. I like the idea of trying to make a summary figure
Ruth: I should have started earlier to get our audio set up–not sure why my laptop doesn't recognize the Jabra Speak, but we got it to work by using my phone for my zoom audio. We were able to involve David as a full participant (except for the apples) while he's at home expecting a baby!

Feb 13 Writing exercise

Smith and Brown

Smith is more concise. It gets to the point. Eliminate unnecessary words.
Short sentences. One idea per sentence.
Paragraphs are helpful. One topic per paragraph.
The language is more direct. Active verbs. Active voice.
Choose simple words.
Aim for a logical flow.
Use consistent structure for related sentences.

Underline the subject, double underline the verb

Can you improve some of your own writing?

Jenna:
Original sentence:
There were no significant effects of N addition ($p = 0.98$) or Ca addition ($p = 0.91$) on stomatal density in sugar maple (Table 2), and no significant effects on yellow birch stomatal density with N, P, or Ca addition ($p > 0.27$, Table 3)

Effects of N addition and Ca addition on stomatal density were not statistically significant in sugar maple ($p > 0.91$, Table 2), and no effects of N, P, or Ca addition on stomatal density were statistically significant in yellow birch ($p > 0.27$, Table 3)

Stomatal density was not consistently affected by N or P addition (statistics parenthetically)

Fate:

Paragraph pre-edit
Data in iMapInvasives are observation-based data organized as presence, not-detected, and treatment records. There is no automatic system for organizing data into sites, or for categorizing data as pre- or post-treatment. In short, there is no expedient way for users to access post-treatment data. As one of the primary objectives of this study, we had to develop a system for identifying and organizing post-treatment data from iMapInvasives.

Paragraph post-edit
The iMapInvasives database categorizes data as presences, not-detected, and treatment records. There is no automatic system for organizing this data into sites, or for categorizing data as pre- or post-treatment. In short, users can't access post-treatment data efficiently. Without access, evaluation of management becomes difficult, if not impossible. In response, we developed a system for identifying and organizing post-treatment data from iMapInvasives.

Sahadat: Pre-edit

Rainscreen weather barrier membrane made by Tyvek, DuPont used for enhancing defence of building against the air infiltration, and water penetration. This wrapping layer used for not only as a barrier system for air and water but also protecting the building walls from water intrusion and damage along with achieving the intended energy performance.

Paragraph: post-edit
Tyvek weather membrane used for improving the panel's controlling performance against air filtration and water penetration.
Dave:
Pre:

Many water quality factors associated with eutrophication and negative lake perception are impacted positively by dense populations of filter feeding molluscs, leading to the perception of an "ecosystem service" (Burlakova et al., 2022; Limburg et al., 2010).

Post:

Dense populations of filter feeding molluscs impact water quality factors related to eutrophication and negative lake perception, leading to perceptions of an ecosystem service (Burlakova et al., 2022; Limburg et al., 2010).

Feb 6 Choosing your Journal

Let's try this: Pick a color and write your answers to each of the prompts below. Legend:
David
Fate
Jenna
Sahadat
Identify five refereed journals in which you feel a manuscript describing your research could be published. Find and copy the most recent instructions to authors published by these journals. Instructions often appear in the first or last issue of a volume and may appear only once each year in journals that have more than one volume annually. Alternatively, find them on the publisher's website.

Be prepared to discuss factors that may influence the choice of a journal for your manuscript in the next class.

1. **List two to five factors that are influential in your selection of the most appropriate journal for this particular manuscript. List them in decreasing order of importance.**

Relevance of article to journal
Legitimacy of journal (e.g., not a 'predatory journal')

(1) Relevance of journal's scope and my work scope (2) Indexing (e.g., scopus) (3) Journal quality (4) Impact factor (5) Cost of publication

1) Relevance: I will start with the journal that I deem most relevant and capable of reaching the most interested audience; (2) Likelihood of manuscript acceptance; (3) Familiarity: Journals I have cited in the past; (4) Cost of publication

1) Relevance 2) Familiarity 4) Likelihood 5) Impact

How will you evaluate these factors? Pick one and give us some metrics

Relevance:

- review the aims and scope of the journal,
- look up other articles published in the journal on a similar topic.
- check with your co-authors
- You know where papers you are citing were published

Legitimacy

- David: consulting firms have their own journals (really a magazine)
- Bohannon, J. 2013. Who's afraid of peer review. Science 342(6154): 60-65. DOI:
- 10.1126/science.342.6154.60
- HTML (exposé of predatory open-access publishers by an editor of *Science*)
- Check Beall's list of predatory journals
- Journal accepts bogus paper requesting removal from mailing list HTML

Journal quality:

- Ranking in this area: I use this link to get an idea.
- IF differs widely by fields
- Check with your co-authors; their opinions may not follow the rankings

Familiarity

- It's a feeling! Maybe partly reflecting relevance and reputation

Likelihood of acceptance: Heavily result dependent, if the result is "new", "exciting", "groundbreaking" more likely to be accepted by any journal. If the result is negative it may be harder to get published in a high impact journal.

- Impact factor is not inversely related to acceptance rate! Authors are judging likelihood of acceptance when they choose where to submit
- Consult your co-authors

- There are journals that will publish work if it is done correctly and well, but isn't necessarily novel (e.g., PeerJ, PLOS ONE)
- You can take a risk with a "reach" journal if you have the time to have it rejected and start over.

Cost

- Color figures
    - Canadian Journal of Forestry… no cost for electronic color figures (they will ask you if you want color in print)
    - Ecology charges for color no matter what

Time to publication

2. Given the factors you listed above, name two to four journals for which you feel your manuscript could be written. Highlight the name of the journal you have selected.

Trees-Structure and Function, Canadian Journal of Forest Research, PeerJ- Life and Environment

Sustainability, International Journal of Life Cycle Assessment (reach, IF>8), Journal of Cleaner Production, Sustainable Buildings

(1) Methods in Ecology And Evolution; (2) Limnology and Oceanography Methods; (3) Lake and Reservoir Management; (4) Management of Biological Invasions

Biological Invasions, Frontiers in Ecology and Evolution, Invasive Plant Science and Management, Weed Research

3. Characterize your perception of the journal you've chosen (reputation, audience, overall quality, time to publication, acceptance rate).

Reputation: Springer journal, knowledgeable editors-in-chief (i.e., my former professor)
Audience: Aims and scope include articles on "functional anatomy" and "ecology" of trees and woody plants, and includes articles "concerned with technological problems, when they contribute to the basic understanding of structure and function of trees." Audience is the "tree biology community"
Quality: Impact factor is 2.888, so decently cited.
Time to Publication: 52 days to first decision (median)

Reputation: MDPI Open access journal (if author paid APC) with high visibility and indexed with most of the recognized databases (e.g., scopus, web of science).
Audience: Even though cross-disciplinary but authors choose for its reputation for publishing recent sustainable technologies and innovation. Besides, it is affiliated with CUTRIC and CIB. Any individuals, institute or organization working with sustainability in building sectors will be a

targeted audience.
Quality: Impact Factor: 3.889 (2021); and JCR - Q2 (Environmental Sciences) / CiteScore - Q1 (Geography, Planning and Development)
Time of Publication: First decision is provided to authors approximately 17.7 days after submission (median).

Reputation: I consider this journal to be one of the foremost in this field producing only high quality, meaningful publications. Audience: I expect the audience of this journal to be mostly applied ecologists and limnologists, but also reach a broad audience that includes managers and theoretical scientists as well. Overall quality: Impact factor > 3, I consider L&O Methods to be of a high quality. Time to Publication: 3 months initial review, ~7 months total. Acceptance Rate: ~75%

Reputation: Springer Journal, indexed in Scopus, hybrid publishing format. 705,125 downloads in 2021.
Audience: Specific to invasive species as a field, but diverse in its scope within that field (i.e. policy papers, economics papers, biology-ecology papers, etc.)
Quality: Impact Factor 3.606
Time of Publication: 76 days median submission to first decision

4. **Does your journal specify**

Acceptance rate?

- Acceptance rate 50%
- Could not find

Time to publication?

- 68.4 days

1. length of the text

Reviews should be 25 pages or less - not specified for articles
Length: Minimum word count of 4000 words
NO
Around 8000 words (longer *may* be considered)

2. length of the abstract

150-250 words
200 words maximum (need a graphical abstract); 3-10 pertinent keywords
<= 250 words
150-250 words

3. number of figures or tables

No limit listed
No limit mentioned. Minimum a resolution of 300 dpi or higher is required for the figures.
NO
None listed

4. page charges

Not listed, but does mention that “for color in the print version, authors will be expected to make contribution towards the extra costs”. Open access is $3490.00, I don’t think there’s a charge if not open access
APC of 2200 CHF (~US $ 2300) applies to papers accepted after peer review.
Open access $2500-3200; page charges ~100 otherwise
APC $3490 if open access. No charge for traditional publishing.

5. required sections (must results be separated from discussion? Is there a separate conclusions or summary section?

Does not list all sections required. Does require, abstract, author contributions, keywords, and “key message”
Front Matter : Title, Author List and Affiliations, Abstract, Keywords; **Manuscript section:** Introduction, Materials and Methods, Results, Discussion, Conclusions; **Back Matter:** Supplementary Materials, Funding, Acknowledgments, Author Contributions (credit taxonomy), Data Availability Statement, Conflicts of Interest, References (numbered in order of appearance in the text and strongly suggested to use bibliography software package. *Results, discussion and conclusion should be separated.
Title page; Abstract; Introduction; Materials and Procedures; Assessment: Discussion; Comments and Recommendations; References; Acknowledgements

Exit Cards

Sahadat: Great! Thank you all, have had a nice discussion on journals… happy to know different criteria for journal selection.
Jenna: This was a great discussion, and I feel more confident about my choice of journals
Ruth: I liked having everyone’s answers in one place, thanks for trying this approach. Maybe we’ll reuse your colors for other topics in the future!
David:
Fate: This has been enlightening! I definitely need to do some more digging into journal requirements. Glad to be thinking about money/costs early too…

May 1 Steps to Publication

Link to the powerpoint file
If this downloads and opens in a presentation where you can't navigate by slide number, open Powerpoint and open the file from "recents".

1 outline from CJFR of all the steps. This slide recurs in the deck to keep track of where we are.

⭐ Submission process: Joe
2-26 J of Forestry submission screenshots

- Create an account, follow prompts to submit contact information and basic info about the paper (title, abstract, figures).
    - Cover letter (significance)
- Read carefully instructions, especially word count
- Make sure figures are production quality (whatever the journal specifies)

49-51 Biogeochemistry, incomplete

In addition, on the class web site, there are screen shots of submissions to various journals, plus the steps compiled by previous students for this class.

⭐ Reviewer's Point of View: Scott
Invitations to review 54-57
64-70 reviewer submitting a review to SSSAJ
71 reviewer sees the result (same paper as 54-57)
72 reviewer sees the result

⭐ Authors Point of View in the Review Process: Nate
75-80 Examples of accept/reject/revise decisions (author's point of view)

- Emails that inform of rejection or acception with different levels of revisions are formal and describe with some details if rejected.
- This is done with correspondence with the main author
- "Please destroy all previous links"

80-98 Saga of a special issue, authors point of view NAFSC FEM

- Series of Emails that detail the level of communication in the time period of working on revisions with the craziness of end of semester and holiday.
- Better version of figure that didn't pass inspection haha

⭐ Production Process: Erin
Production 100-109 Uncertainty in Ecosphere
Production 110128 NAFSC FEM

- When a manuscript is sent to a journal its assigned to an editor. If a review is required, it gets sent to reviewers. Once a manuscript no longer requires a review (as deemed by the editor) the manuscript will either be rejected or accepted. If accepted,production will receive the final manuscript and send proofs and publication details to the author

- Production usually needs additional information before they can send proofs
    - Transfer copyright of article or make open access
    - Order offprints
    - Order poster
    - Print figures in color

⭐Proofs: Nehan
Proofs 130-140 Nutrient Uptake
There are examples of page proofs from multiple journals on the class web site, as pdfs.
I made a zoom recording of the functionality, before clicking the “submit” button. That video is on the web site.

- After the acceptance, the authors are required to double check that the paper meets the journal’s formatting requirements
- Check the metadata and not make any significant changes
- There’s a deadline for sending in the proofed version
- “Cannot add any new authors at this point”

Advice for future authors

When you add changes that you were not specifically asked for: if it's small, don't mention it. If it's large, then try to tie it into a response to a comment.

The goal is to not have to be sent out for review again.

How small does a change have to be to be included verbatim? If the change is easy to understand with a short blurb, or occurs in many places throughout the manuscript (all instances of "stand" changed to "site"), there is not a need to document each change.

When you get reviews, you want to keep your responses in the same order that you get the reviews. It is easier for the editor if you don't rearrange them. Line-number order of all the reviews may be easier for the author but not for the editor.

Reviewer Comment	Possible Response	Better Response
Reviewers often make general comments at the beginning of the review.	Making changes to general comments and saying nothing…	Address the general comments and state what you did differently, with examples from your paper that show the changes.
Reviewer explains a section that requires revision that is general to the section and not explicit	Just explaining what revisions were made based on the comment	Include the line number in the revised documents where this revision was made
You have displayed and analyzed your data as a function of stand age, but not as a function of tree diameter.	Data regarding tree diameter has been included in the study.	Beech diameter data has been included in the methods and results sections. *Insert table or description of beech diameters"
Line 6: this sounds like you are not including your old growth stands	A description of old-growth stands was added to the site description	This sentence was added to the paragraph describing the sites: "Two old-growth stands were added during the 2021 sampling period (Table 1)."

Line 97: telling us about the sources of salinity belongs in Results. The purpose of the test could be in the Introduction (objectives) if you want.	Done	I moved the sources of salinity to the results section after… I added the purpose of the test to lines… This newly added section reads:
Lines 129-136: Needs consistency in chemicals names/symbols representation	Sounds good	The reviewer is referring to how I would either have the symbol or the chemical name first "insert quote from draft here" I changed these lines to always have the chemical name first, followed by symbol (e.g. "Calcium (Ca), potassium (K)...")
Line 78: "…young forests having a more distinct community composition…" "Distinct" is vague. How do the young forests differ from the mid and mature forests?	I have made this term more descriptive, by stating young forests are more dissimilar in herb community composition than other forest ages. The line now reads: "Herb communities of young stands were more dissimilar than mid-aged or mature stands between the years 2010 and 2021"	**Additions will be in bold**, ~~removals will be strike-through,~~ quoted material in black, and my replies are in blue. The line now reads: "Herb communities of young stands **were more dissimilar** than mid-aged or mature stands between the years 2010 and 2021"

Good examples:

Thanks Ruth. My replies will be in green, with quoted text in black, ~~removals crossed out~~, and changes in purple.

18 I think it's safe to say that the stands were naturally regenerated after heavy cutting.

Thanks. I changed this sentence to this effect.

"The chronosequence stands all naturally regenerated after heavy cutting ~~were all clear-cut~~ between ~1875 and 1990."

April 19 Abstracts

Abstract Slides

Ruth: This was an amazing set of abstracts for illustrating some extremes of variation (and a graphical abstract). Keep this set for future reference!

April 14 Ethics (TK: Joe)

What are you most interested in?

Conflict of interest - Erin, Favour

Pp 142

Erin: policies and procedures that are used to adjudicate conflict of interest.

Credit - Scott, Nehan

144, case studies on 144, 146, 147

- Case Study 1: Method
- Case Study 2: Award not being awarded to graduate student, when her work was published
- Case Study 3: Publish papers in a series? Or one big one.

Misconduct - Joe, Nate

148, case studies on 148, 149, 150

- CS 1: Don - applied to an NSF grant saying something was submitted when it wasn't.
- CS 2: May - Plagiarism in a mid program written exam results in expulsion from college.
- CS 3: Francine - Should she bring up questionable activity to her advisor about another labmate tampering with data.

Resources for reporting wrongdoings, if conflict with major professor:

GSA

Dean of graduate studies

Department chair

Student Affairs

April 5th Peer Review Readings

https://retractionwatch.com/

Paranoid about Peer Review

Favour: [Paranoid about Peer Review (Dec. 12, 1996)]

- " these criticism are usually finals and leave no room for an appeal",
- Could it be that papers originating from research institutions in "developing countries," to use an accepted euphemism, are more rigorously reviewed than those from laboratories elsewhere?
- Whenever there is a conflict between the referees, the editor's final decision invariably tilts towards recommendation for a rejection, rather than getting a third opinion.

Nehan: First article starts with 'If peer review was a drug it would never be allowed onto the market'....

- there's little scientific evidence supporting the effectiveness of 'peer review', i.e. no proven relationship between peer review and article's success post-publication.....
- Medical journals have poor quality statistical analyses
- The global cost of peer review is 2billion pounds
- Let's publish everything and let the world decide what's good or not

Scott:

Nate: The community of scientists.. (1990) & How to Write an Influential Review

- system that tends to allow only conventional work into the journals and discourages truly significant innovators or original thinkers

How to write an influential review

- Negative reviews tend to be lengthy while positive reviews are short? Is this true?
- New and conflicting ideas don't get enough time to develop
- Reviews and negative comments to attack other scientists with large consequences of being negative
- Lack of post publication reviews

Joe: **Peer reviewers unmasked: largest global survey reveals trends** (Vesper 2018). Scientists in developed countries provide nearly 3x the peer reviews per paper as scientists in emerging nations. Scientists in China, India, and Iran submit more papers than they review, but this is the opposite for the U.S and UK, among other countries.

Erin: Reviewing post-publication peer review - PPPR makes retractions and corrections of published papers more common place

- Bias: reputation of the institution, gender,

March 29th Midterm Reviews (TK: Joe)

https://forms.gle/Wt9QSpR1B24iyHba6 here's a link it won't take that long because its the same as last year except without the Zoom Questions.

Link to Responses:
https://docs.google.com/forms/d/1iOAhTp9zmfboKZukJJdn_MjKo2RiN_alfwk-t0_F6uc/edit#responses

March 10: Response to Peer Review (TK: Favour)

How to write your response document

Thank the AE and reviewers

Start with the full set of reviews, including comments from the AE (on top). If you got reviews as 2 separate documents, please combine them.
How to format:

- Colors!
- Italics!
- Broken up by reviewers and sections
- Make sure you know the requirements of 'formatting' of responses

- Your goal is for the AE to make a decision by reading your response doc *alone* -

- organize the response to each reviewer, and provide documentation for every change, make the editors job easy. The last thing you want is for her to throw up her hands and send it back to the reviewers. You will lose time and risk getting more requests for changes.
- goal is to make the response easier so that the AE doesn't send it back to the reviewer
- if the two reviewers disagree, you get to decide which reviewer to agree with, and use the other reviewer's reaction to support your decision.

Don't make changes that make your paper worse! Some of my coauthors have made all of the changes recommended. You are required to respond to all comments and state where disagree, you don't have to make all of the changes.

Address reviewers' concerns.
When you agree, implement the change and document it.

- BLOT - Don't repeat yourself, put the change first. Be concise.
- If you disagree with a reviewer, explain why. Be respectful
- When a reviewer suggests something you don't want to do, it's more convincing if you can try it and then dismiss it than if you just dismiss it (which could like laziness or a resistance to suggestion). You might try it and find that you like it, even if you thought that you weren't going to like it.
- What to do if a reviewer misunderstands your paper? Improve the paper so that another reader doesn't have the same misunderstanding. (Don't say that the reviewer was an idiot and nobody else could be so dumb.) Often it's true that there was a problem to correct in communicating about the paper, if not changing what was done. Even if you don't think there is something wrong, see if you can change something to improve the paper.

When the reviewer's comment does not stand alone:

Provide context for the AE. Otherwise they will put it aside for a week or send it out to reviewers again (which will take a month). If the reviewer says "71 clarify this", the AE needs to see what the problem was. "The whole section now reads as follows…"

Suggested language for when you don't agree:

We recognize that…
This turned out to be not so interesting…
We acknowledge this limitation in our experiment…
I prefer….

Suggested language for when you do agree:

This is an excellent idea.
The figure has been much improved; thank you for your question.
We regret that…

This was well written, well thought out manuscript

What not to do: Examples from last year

- Don't tell, show what you did.
- Don't be rude
- Do not explain why you did something wrong – it will sound like you are defending it and are not going to change it. Just let the AE know what you did to improve it.
-

Advice on responding to reviews

Write the response document as you make your revisions.
Make sure you have the version with the line numbers that the reviewers saw.
If you start at the bottom, the line numbers will not change for the comments you have yet to respond to.
You may be required to submit a tracked-changes version. You can use "compare documents" to generate this version--Google Docs has this, as does Word

March 1: First Draft (Methods and Results) (TK: Joe)

Instruction to Reviewers

- What parts of the paper did you like? Let the authors know what they did well.
- Is the topic of interest to our readers? Is it significant to a broad audience? Is it original?
- Does the title represent the contents?
- Is the length appropriate to the number of ideas? Suggest areas for expansion or deletion
- Is the manuscript logically organized?

- Is the relevant literature adequately covered? Is the contribution of this paper clear?
- Are the methods appropriate and have adequate controls been included?
- Can the reader tell which measurements are independent of which others?
- Does the paper include only mathematics necessary to make a point? (J of Forestry)
- Are the details of materials and methods limited to what is needed to understand the design and judge its validity?
- Are the results limited to answering the questions set out in the objectives? (GSE!)
- Are the results presented in terms of the system under study rather than the statistics?
- Can you easily verify the results described in the text by reference to figures and tables?
- Does the author clearly distinguish between conjecture and fact?
- Are the conclusions supported by the results?
- Are all tables and figures necessary? Should any text be replaced with a table or figure?
- Do the figures captions contain enough information to orient the casual reader?
- Are the keywords, abstract, and summary informative?
- Are there materials that should be moved to digital repositories?
- Are terms adequately defined?

How to write your review

Your review is addressed to the editor, who will make a decision about the paper. Comments not relevant to that decision should maybe not be included, provide them separately.

You can label a section “Comments not worthy of response”.

Start with a brief description of the paper. Establish your credibility.
Tell us what you liked about the paper!
Separate general (major) from specific (minor) comments.
Point out major problems early, Start with major problems with methodology or interpretation.
Organize your review to address the major sections.
Provide reasons for your recommendations where relevant
Reference the specific comments by line number (range of line numbers)
Format your review clearly, but the journal website may not support fancy formatting.
In closing? Sometimes. More often they dribble off into minutia.

Tone: be as nice as possible.
Review and revise for positive constructions. Focus on the desired behavior: The writing could be improved.

FFeb 22: Writing (TK: SCOTT)

**

General

Pneumonic for when to use “which” or “that”:

“Which” is as disposable as a sandwich (once removed, the sentence maintains its meaning).

"Perfection is the enemy of completion"

Feb 17: (TK: Joe)

Crayola Crayon

Look at the paper of the person to your right, see if you can suggest additions or improvements to their tables or figures. After that person, go to your left.

Statistical Party Game

[Taken from a review of a manuscript] The statistical analysis is incompletely described. This is a common flaw. To my students, I have proposed a party game: Write your description of your statistical analysis. Pass to the right. From the description of the person on your left, write a statistical model in the language of your choice. If the person on your right didn't get your model right, your description was inadequate. The statistical analysis section of this paper has a very low chance of winning at this game.

Exit cards

Next time, assign party guests according to the statistical tests they are familiar with. If your partner can't write the model with a perfect description, you're handicapped in this competition!

Feb 15: Methods (TK: Nate)

Google form to add acceptance rate and impact factor of journals

Link to the corresponding google sheet

May 5: Steps to Publication

For 10 points (submit with final draft): Paragraph/page detailing **all** the requirements for your journal.

Go to the journal website and start a submission (just for practice)!

1 outline from CJFR of all the steps. This slide recurs in the deck to keep track of where we are.
2-26 J of Forestry submission screenshots A➳ Nate
47-50 Biogeochemistry, incomplete? A➳ Nate
In addition, on the class web site, there are screen shots of submissions to various journals, plus the steps compiled by previous students for this class. A➳ Nate
-different directions for each journal
-individual boxes for keywords, abstract, etc.
-receive a temporary MS Number after submission
Invitations to review 54-57 B➳ Joe Scott
63 Ecosphere history of rejections <—how long it can take to get enough reviewers for the AE to make a decision C➳ Scott Joe

- How long should it take for reviews?
- Between Jan 3 and mar 24 went through 9 reviewers (1 review submitted)
- 1 accepted to review Feb 13th and submitted mar 6th

64-70 reviewer submitting a review to SSSAJ B➳ Joe Scott

- Someone reaches out to you, you get paid a “small token”
- All: if you can’t, nominate someone who can
- Be aware that things are slow, and how long should you wait to hear back from the journal? Monitor progress ont he journal web site

71 reviewer sees the result (same paper as 54-57)

72 reviewer sees the result

74-79 Examples of accept/reject/revise decisions (author’s point of view) D➳ Brianne

- Email that gives status of manuscript: accept, accept with major revision, minor revision, etc.
    - Will see reviews in same email, sometimes 5 - 10 page email.
- Still get review comments after rejection. No need for response document.
- “Revise and resubmit” - if it takes a year to review it, it’s bad on turnaround stats. So they’ll consider it a new submission instead.
    - Will still want the response doc.
    - Do not feel rejected, they want to stop the clock!
- “No journal will ever take your manuscript as is” - Ruth (until after you revise it)

80-98 Saga of a special issue, authors point of view NAFSC FEM C➳ Scott Joe

- Asking for more time -- write to the journal and ask
    - Adding more samples to results
    - Submission dates are not always firm
- Special issues may become available immediately now that they are digital
- If you care about how soon your paper is available to people, take this into consideration. There may be some delays!

Production 100-109 Uncertainty in Ecosphere E➳

Production 110128 NAFSC FEM E➳

Proofs 130-140 Nutrient Uptake E➳ Lalita

- A manuscript copy is sent to you for review. At which time you’ll do a final review to determine if corrections are needed.
- Usually given 48 hours to correct, now probably online (formerly on paper, then pdf)
- CHECK EQUATIONS! color problems, name corrections, years not matching, metadata, tables,

There are examples of page proofs from multiple journals on the class web site, as pdfs. F➳ Dylan Lalita

- Do not change style or text that would impact the meaning. Attention should be on fixing errors

The ones I responded to last week are still linked here but you can’t edit them. So I made a zoom recording of the functionality, before clicking the “submit” button. That video is on the web site. F➳ Dylan Nate

Hey, that paper was the result of a grad student seminar two years ago. All the junior authors

were students at the time.

Okay, see you Wednesday. I feel like we should do something special for the last day of class. Wear a funny hat and get yourself some food or beverage!

Advice for delivering Steps to Publication:

Scott: It's better to make it more active for students. We call this "jigsaw" activities where everyone gets a segment to be a master of in the education world, ask Nora about it!
Brianne: It was an interesting class, I think if everyone briefly reviewed their sections before class, it'd go a bit more smoothly
Joe: I didn't ever really feel like Ruth was "lecturing" to us -- which I thoroughly enjoyed. This class was very collaborative, and super helpful. I'm sure the mycorrhizal paper would not be anywhere near as "ready" as it is without the deadlines in this class!
Dylan: Yeah, this was better than being read each of the chapters by the same person for sure. Maybe even more exciting would have been to run through a mock example of these steps with some of our own content, though not sure how that would have worked exactly. Ruth: try that on your journal's web site!
Lalita: Great Interaction with involvement of each. I enjoyed the class.
Nate: Enjoyed all the screenshots, they gave some good perspective on the submission ordeal and also how long the review process takes. Glad there was no homework too.
Ruth: Now I remember I said you could review the materials in advance if you wanted to--so I stayed up Monday night to prepare them! They're there forever if you want to study more later, as you go through the process.

Exit Cards for today:

Joe: It seems like waiting to get page proofs would be pretty stressful. I'm sure I would be camping the weekend I am supposed to edit them!
Brianne: Writing a publication is stressful in general, I can't imagine what my revisions will be but I pray to the science lords that it will say "favorable".
Nate: ^^ me too about camping, I would hopefully get past the submission and just need a break from my computer. Would definitely need a break after submitting this paper.
Scott: I was OUT of it after my intellectually stimulating conversation with the postdoc about research and getting my second shot, but I 'still found value in learning about what happens to get published. There seems to be lots of emails involved and it makes me more empathetic towards profs.
Lalita: Over all class today was good. 5 min to read was abit not sufficient
Dylan: Yeah 5 mins was a little hard to get a grasp on my step.
I agree that the whole 48 hour thing seems nuts. It feels like some new obstacle in a reality tv show, like: now the scientists have 2 days to juggle their responsibilities with hours of new edits to make. Let's see who can get them in and who will be eliminated!... like why not just let us know ahead of time so we can prepare?

May 3: Last-chance informal reviews

<u>Please practice improving these anonymous examples:</u>

Write about your study topic, not about other researchers

Ectomycorrhizal fungi were found occupying soil horizons above arbuscular mycorrhizae in a boreal aspen *(Populus tremuloides* Michx.) clearcut (Neville et al. 2002). Ectomycorrhizal species have also been found to vertically differentiate in a red pine (*Pinus Resinosa* Sol.) plantation (Dickie et al. 2002) and in a mixed coniferous forest in Sweden (Rosling et al. 2003).

Azad et al. (2021) studied litterfall and climatic factor to determine its pattern in *Heritiera fomes*, *Xylocarpus mekongensis* and *Bruguiera sexangular* in Sundarban, Bangladesh. Similarly, among the mangrove species on the west coast of India, Rani et al. (2016) showed spatial variability, seasonality, and environmental variables associated with litterfall. Cuevas and Lugo (1998) explained tropical tree species differed according to the amount of N and P resorption before leaf fall.

Don't ask us to learn unnecessary acronyms

Cattle are regularly rotated throughout these pastures, with improved pastures generally having a higher grazing intensity (1.3 ha per animal unit [AU]) than seminative pastures (2.1 ha/AU) (Swain et al. 2013).

“Which” is nonrestrictive, “that” is restrictive

There were 12 samples that had a range from 4-23 segments.

In this study I examined factors which may affect the rate non-native terrestrial plant species spread.

How many digits to report?

Meanwhile, NP treatment in Redmaple significantly reduces leaf fall (p-value 0.0095).

Therefore, the interactions between species and treatments only show a trend for N and K content (P=0.1407 for N, P=0.4743 for P, and P=0.0793 for K) as a result of potential differences in the responses to treatment for each species.

An ANOVA test did not show any significant results in pasture type (p= 0.204), location (p= 0.703), or the interaction between the two (p= 0.949).

Cite Figures and Tables parenthetically

Lastly, in Figure 4 we can see that data groupings with small mesh, correspond to higher values of K (rate of decay).

Each line graph in Figure 1 shows the pattern of a share of retained leaf in trees (Y-axis) against trips (X-axis).

Write about your study system, provide statistics parenthetically

The ANOVA for the linear mixed effect model (Table 2) showed that the application of nitrogen alone, phosphorus alone, leaf litter mix, and young/old stand age made no significant impact on the rate of decomposition over the two year time period.

There is a trend in the effect that treatments had in increasing the mass of foliage in response to nutrient additions (P=0.0533).

An ANOVA showed that dispersal mechanism did not significantly affect invasion rate, *F* (4, 157)= 2.13, *p*= 0.08.

We need to know the direction and magnitude of effects, not just significance

Species fixed effect: Beech (p-value < .0001) and Sugar Maple (p-value 0.0031) are significant.

Interaction of age with species (Beech and Sugar maple) is significant.

-

April 19: Bring something relevant to peer review

Scottesh: Who's Afraid of Peer Review?
A spoof paper concocted by *Science* reveals little or no scrutiny at many open-access journals.
& The state of the art in peer review *** (Scott)

- Model presented for “open peer review”

    - There's lots of research done on making science more transparent, but nothing much has been done on this.
- No way to assess peer review quality.

Ruth: This is not common but I'm starting to see it. Soon there will be studies as to whether this improves the peer-review process and the papers that result.
The only time I submitted a paper to a journal that did this, we didn't get any volunteer reviews.

Brianne: Cambridge Guide to Peer Reviewing (Bri)**

- Demonstrate your expertise for grants

Ruth: My annual report asks what journals I have reviewed for. But this information does not get used for my productivity (for allocation of merit raises, GA support).

- Post-publication peer review?? They both get published?
- Is the contribution significant & a good fit for the journal
- Is there enough evidence to support the article's claims. What if it's brand new research?
- Single blind, double blind, open, post publication

Ruth: This is exciting, it takes advantage of electronic access. It used to be hard to find later commentary on the

Elsevier's What is Peer Review: explains single, double, triple blind reviews

Lalita: Research fraud: the temptation to lie (DF) ****

- Academic fraud is hard to detect, especially because reviewers don't have access to the raw data
- But it is widespread- ⅔ of retracted papers attributed to misconduct
- Survey showed 13% of researchers knew about colleagues falsifying data

Ruth: This is PubMed? I believe that the rate is low among ecologists, but I don't know.

- Fraudsters may be motivated by desire for publication, money, notoriety, culture that overlooks negative results
-

Meta-research: Why research on research matters

Joe: Ten tips for a truly terrible peer review (Elsevier) ***(Joe)******

7. "Clarification is important as editors and authors cannot read your mind; they can only read your review."

10. "apply the golden rule: do not do that to authors which you would not care to receive from reviewers yourself."

Removing bias from reviews can be done through double blind situations

eLife Peer Review Collection a series of articles
Decisions, Decisions: about avoiding bias

Dylan: Think you're your own harshest critic?- try peer review(Lalita)****

    - Remember, this is not YOUR paper: The job is not to sculpt it into a paper you could have written.

- Changing the framing, but not the predictions
- Ensuring all the information is there for future readers: Read the paper like you are a naive reader, and make sure there are enough information to judge the paper
- Digging and showing off
- “Don’t dig for dirt in order to pad the review or show how brainy you are.”
- Honesty about your expertise

Nate: [The elements of productive peer review](#) blog post (Nate) (%)

- Lots of emphasis on what is an issue that needs to be addressed and what is just a reviewers pet peeves, and then just going from most important and larger issues to smaller details
- A good review can be a bad review for an author - meaning if you only say that it was good it is hard for an author to improve the paper

-

Would a male graduate student (in 1967) have been given more credit? Nobel prize decisions

have been criticized for overlooking women and scientists in developing countries.

Misconduct: 148, 149, 150

http://retractionwatch.com/

March 24: Statistical Party Game

[Taken from a review of a manuscript] The statistical analysis is incompletely described. This is a common flaw. To my students, I have proposed a party game: Write your description of your statistical analysis. Pass to the right. From the description of the person on your left, write a statistical model in the language of your choice. If the person on your right didn't get your model right, your description was inadequate. The statistical analysis section of this paper has a very low chance of winning at this game.

Paste your Data Analysis section here.

How to handle discussion of Introductions

In the same Google Slide deck that we used for Discussions, share an Introduction with paragraphs annotated as to the role they serve.

What are the categories of work that a paragraph in an Introduction might do?

Problem to be solved (as broad as possible).
Why this research is important or useful
Orient the reader to what the topic is about. (Background)
Highlight gaps that your research will fill
General Objectives
    Specific Hypothesis and questions

Do not: Provide a literature review that shows you are well-versed in the research study's topic.

Red Flags that direct the reader's attention:

"It was not clear whether…"
"Controversial conclusions..."
"A general understanding is hampered by…"
"It is necessary…"
"Most previous studies, however…"
"Key determinant…"
"Rarely documented…"
"Unfortunately…"

“But their collective results have not yet been summarized statistically…”
“Making it difficult…”
“Clearly there is a need for…”
“However they do not reveal…”

March 22: Response to Reviews

Are all the reviews in, both to me and to the authors? (then share reviews all around)

Lalita will review Dylan, since Rod dropped out.

How did it go, being a reviewer?

Nate: I didn’t hate it. I understood the content, and Lalita and I are in a similar situation having to write up something we didn’t do--from the same study.
Scott: Finding out why I thought something was all right or needed improvement was hard to articulate. Ruth--Having to explain how you knew something could be improved is going to improve your writing.
- Also writing too much - need to make this process faster since time is **$$$$**

Brianne: I was interested in Scott’s topic. It helped to slow down and read it out loud. I realized that I was writing too much in my review, I see now that it could be more concise.
Joe: I want to give good advice and not burden the author, which makes me anxious.
Nate: It has helpful to refer to the guide we wrote on what to include in a review

How to write a response to reviews

See examples here: https://www.esf.edu/for/yanai/publishing/review.htm

You can start by thanking the AE and the reviewers.
Your response is addressed to the AE. Your goal is for the AE to be able to read this document without going back to the reviews or your manuscript and make the decision to accept.
You need to address every comment (this is a reason to avoid listing trivial changes in a review).
Copy them verbatim.
If the review comment is not clear, you may need to explain it. You may want to copy the sentence in question.
Document your changes.
If you don’t agree, you don’t have to do what they ask, but you have to explain why.
If the reviewer misunderstood, make a change to prevent other readers from having the same misunderstanding. The change may be in an earlier part of the paper.
A reviewer may ask for something you already tried. If so, show them what you tried and why it didn’t work.
If a reviewer asks you for something that won’t work, it’s best if you can show that you tried it and that it doesn’t work. Otherwise, it could look like you are being lazy or defensive.

If the two reviewers disagree, you will need to cross-reference the comments.
What if two reviewers ask for the same thing? Do you provide it twice, or cross-reference it?
Do whatever is least annoying to the AE. How long and how memorable is the response.
Try not to be defensive. Don't explain why you did something wrong--it will sound like you are refusing to make a change. Just let us know how you are going to make it better.

Advice on responding to reviews

Write the response document as you make your revisions.
Make sure you have the version with the line numbers that the reviewers saw.
If you start at the bottom, the line numbers will not change for the comments you have yet to respond to.
You may be required to submit a tracked-changes version. You can use "compare documents" to generate this version--Google Docs has this, as does Word.

Advice on response docs: **Anonymous examples of what not to do**

Show what you did.

- 93 Was this an automated search?

I did this manually.
(was there a change to the manuscript?)

•The Methods section should start with the site description and then chronologically describe what was done. Litter collection, bag assembly, bag deployment, etc.

I have reorder the methods to match your recommendations in the marked PDF. Let me know what you think. (Should I paste the sections into the review?)

- Don't repeat yourself by first describing what you did and then showing what you did.

48 You don't need the exact coordinates, and I don't think we would even want to give the exact coordinates out. 44N and 71W is close enough. Same with the HB lab described later.

Got it! ~~I corrected the coordinates to be more vague. It probably wouldn't be great to disclose the exact coordinates.~~ "Leaf litter was collected and studied from four tree stands from the White Mountains of New Hampshire within Bartlett Experimental Forest (44°N 71°W) (Figure 1)."

Show what you replaced. You want the AE to accept your paper without going back to the document to understand your improvements.

-If I'm right about your best results, then you should put more emphasis, in your Introduction and Objectives, on the question of how species differ in the timing of leaf senescence. I don't know the literature on this topic and can't be sure that this contribution is unique (the NxP addition is unique for this forest type). I think there are tropical studies that sort litterfall at regular intervals year round, which would have a similar approach to ours at characterizing litterfall by species.

In seasonally deciduous forest types like ours, it's common to collect litterfall for mass just once a year. Check for papers by Jared DeForest, he has a P addition experiment in Ohio that might be relevant.

*In regard to your review, I added some points focusing on the species level analysis in Introduction and Objectives. I found the information on N*P was limited (have some papers cited for N, P, C but not the interactions). Also, there are few findings related to species and environmental variables, mostly in tropical regions. Those provide us evidence that there is something to analyze.*

Jared's Paper: Yes, I looked through his recent 3 papers and cited one which suggests P action can increase the availability nitrogen-like elements.

90 Why not continuous samples? Are you potentially missing any valuable information by not having data between depths of 10-30 cm?

Added

"Shallow cores were collected September 22 and October 10, 2010 using a 2" diameter polyvinyl chloride core hammered 10 cm into the soil after removing the Oi (litter layer). Deep cores were measured 30-50 cm from the top of the mineral soil, as is conventional; this does not correspond to the depths reported for shallow cores."

In some cases, this means that you have to explain what the reviewer's comment was about.

If the reviewer makes multiple points that require multiple answers, put your comments after each of the points.

Did not break up larger comment into multiple points:

How did you identify germinants? I bet this is hard and deserves some description. Were you able to identify all of them? Can you address the error rate is in identifying germinants? This would be easy to test genetically. I don't know how else to test it. We are describing error rate in species ID in FIA by comparing the results of the field crews to the QC crews. Did you have expert guidance?

In combination with an expert's guidance, we also had a photo library of seed germinants compiled by a former intern. This is how most germinants were identified. ~~In case that we were unable to identify germinants at the sapling phase, we let them grow until we could ID based on inflorescences, making the error rate slim as we are able to key on adult plants.~~ I have made it more clear in the methods section on how plants were identified in the shadehouse. The new section reads:

Improve on these bad responses

L307: Higher than what? This may not be the best way to describe these data.

Revision: L307: it was revised.

L377: How is “resettlement” of microbes different from re-colonization?

Responses: They were two invasion types of cellulose decomposing microbes and basidiomycetes.

171 maybe the problem here is just the definite article. It sounds as though we are supposed to know what these freshly cut profile walls are. Explaining chronologically what you did usually works.Response:

1) The more detailed information for method of soil samples were added.

2) We conducted field work from May to October 2010.

I don’t think “output” is a verb. “Put out” is the source of the noun “output.”
Response: We believe that “output” is commonly used as a verb, but we do find after reviewing this comment that its use as a verb is deprecated in formal writing. We have revised the instances of its use as a verb accordingly (e.g., “Catchments with large, flat and intermittently wet topographic features generated less NO_3^- and ammonium (NH_4^+) output but more dissolved organic nitrogen (DON) output than catchments with little or no wetlands”).

March 3: Writing

Storytelling in the scientific realm: Yanai, Currie, Goodale (2003)
Yanai et al. 2005 Journal of Forestry. Also JoF 2012? Uncertainty.

Feb 17: Outlines (w/ full statement of Objectives)

What are we hoping for from an outline?

- Do the parts go together and make sense?
- Can you suggest any improvements to the organization
- Were each of the objectives addressed?

- Are there any answers for which an objective is missing?
- Are the relevant methods described?
- Is there anything extraneous?
- What is the most important background to include in the introduction?

Lessons to Share

Introduction:

Problem statement (big)
What is known and unknown about your topic? Literature review.
Good to lay out the knowledge gap explicitly.
Avoid raising questions you can't answer.
Justification for the hypotheses belongs in the Intro
objectives should be simple and follow logically from the background.
Problem statement can be broad. Objectives focus in on what you can answer in your particular study.

Results

Example of a “Laundry List” (this is a good way to see what you have, but can you tell us what we should get out of it)

Beech:

- N2P2KB: KB in addition to N2P2 resulted in mild N toxicity compared to N2P2 only.
- N1P1 showed luxury uptake of K and P compared to control and to N1.
- N2P2KB showed luxury P uptake compared to N2P2. This could be a KB effect; did K and/or B improve the ability to take up (though not apparently utilize) P.
- N2P2KB showed excess K uptake compared to N2P2.

Better Results: Beech didn’t really do well with any of the fertilization treatments; responses ranged from none to luxury (P in N2P2KB did seem to make it into the tree, even though no growth response occurred), to excess K in the N2P2KB treatment.

Discussion

Conclusions Refer back to problem statement

Figures and Tables

In general, readers can find guidance in a legend more easily than in your figure captions.
If too many colors to distinguish in gray scale, consider symbol shapes and line types.

Your journal may publish figures in color. Make sure that they are legible in B&W.
Find a guide to color choices that are distinguishable by all viewers, color blind and non color-blind.

Metric units for international journals. Some US audiences understand English units, check your Instructions to Authors.

Digits: Think about whether they are all meaningful. Does Lat 43.13633333 give more precision than your instrument (or the diameter of your stake).
Other ways to choose how many digits to show?
When you have a standard error, this indicates the confidence in the mean.
It's not meaningful to aim for consistency across different units!

Watch out for defaults on figures: axis scale, size of labels, boxes, grid lines
Watch out for default error bars in Excel (if they all look the same, they are wrong)

Box plot: characterizing a sample, don't mix/combine samples taken over time

Captions can contain interpretation of results, depending on journal/field. Readers tend to look at figures and tables first so caption info is important to convey results. No speculation. Describe trends (increasing/decreasing) vs function of or correlated.

In what order presenting categorical data. Alphabetical prob not best

Conventions: [concentration] if not, conform to the norm (units). Keep same order of variables in legend and caption. Solid line around legend.

If logic to symbols, use it. Like color to mean spp. Shape to mean function.

Pathways: Images of chemical structure is helpful. Define acronyms if audience may not know them. Don't ask people to memorize your unusual acronyms, just write it out each time.

A column with all the same values is an unnecessary column.
Do not include redundant columns (e.g. count and percentage).
Your numbers should be aligned on the decimal--but the journal will format your tables, so they will apply their journal style even if you don't know it. Another example is vertical rules, often not allowed.

LAST YEARS NOTES
We like the dotted line but it needs to be explained in the figure caption.
Order the legend to match the observations.
What about putting the top, mid and bottom of the tree on the y axis. Soils people do this all the time, even though it means the response variable goes on the x.

Figure axis labels should have units in parentheses at the end.
Avoid acronyms.
Are figures usually labeled with sans serif fonts? Does your journal have a particular style?
Order of treatments! Alphabetical is rarely the best order.
Don't use the same fill pattern to mean the same thing across different graphs, if you can afford it.

Table of data sources--need to decide whether this is better than a paragraph of text.
Don't include tables redundant with figures (or text).

How do you decide how many digits to report?
For P values: report to 0.01 or the first significant digit, whichever comes first.
Think about how many digits are meaningful. Probably elevation of a lake is not precise to 0.01 m.
You can also look at the variability. 1622 plus or minus 50?
You may decide to include insignificant digits up to the 1 place. 1600 kg/ha
Align numbers on the decimal (or make sure the journal does it for you)

What's in rows vs. columns? Numbers are easier to compare in columns than rows.
Beware of defaults. Do you want the gray background, the gridlines, etc.

Maps: You need a north arrow if it's not up.
Choose your base map--for example, are political boundaries helpful?
Consider an inset map for context.
Scale bar.

Specify the meaning of your error bars (SD, SE, CI)
Specify the parts of your box plots.
Spell out conventions in other types of figures; you will enlarge the audience who can understand your paper.

Site names: Don't ask your readers to memorize the meaning of your site names (don't ask them to learn any unnecessary vocabulary)
Consider using color, if it won't cost you more. Use colors that can be distinguished in black and white.
Close up space between panels if the axis labels are redundant and can be removed.

When should your axes start at zero? Is the magnitude of the effect relevant to zero?

Font sizes (bigger)

When do you connect the dots? When do you use a curve to connect them?

Feb 13: Peer Review

From Publons: In this new blog post, we provide resources that will help you to write a constructive peer review, including peer review templates, example reports, guidelines, and free courses like the Publons Academy, which gives you practical experience in peer review.

How to write a peer review: practical templates, expert examples, and free training courses
27 FEBRUARY 2020 on Learn peer review, Publons Academy, How to peer review, Peer Review Template, Peer Review Examples

(Added by Jenna 4/3/2020: PeerJ's review criteria: https://peerj.com/about/editorial-criteria/)

Feb 25: Reviews, Responses to Reviews

How to write a response to reviews

Be clear whether a change was made or not. "No change" (but you have to say why).
Ways to distinguish your responses from the reviewer comments:

- "Response:"
- Italicize the review comment
- Colored fonts (responses in blue, quoted material in red)
- Different fonts (serif and sans serif).
- Responses in bold face.

Blaz found on Twitter: #sixwordpeerreview
If it will help you to share your troubles, post here!

How to handle revisions
www.dartmouth.edu/~mpayres/teaching/gradprogram/HowToRevise_MPA.pdf

March 10: Feedback for Improvement

Places on campus for help:
Moon Library has a writing center (one negative experience)
ESOL, in the basement of Marshall Hall
SU Graduate Editing Center (good reviews). College of Arts and Sciences (Bird Library?)
SU Writing Center, staffed by grad students in the writing program (good for grammar, but page limit and time limit). They also have a service where they will review your entire document. Needs a turnaround time, 4 days to a week. (https://thecollege.syr.edu/writing-center/)
Zotero--in office hours with John Drake

Expert reviewers:

https://docs.google.com/document/d/1iztkbyF8zRQbT-mFEWdcNPJLeE5F8kk-HZRA-kazWN4/edit

Feedback with Anonymous Examples

Sentences about statistics can be rearranged to be about your study system.
"Time did not affect the change in mass loss with leaf litter type."
Statistics: There was no interaction of time and litter type on mass loss.
Mass loss was consistent across litter types over time.
Don't say "There was a significant effect of litter type."
"Mass loss differed by litter type." "Litter types differed…" Elaborate
Direction is most important, magnitude is important, statistical significance is least important (as long as you don't describe insignificant effects).
Oak leaf litter decayed 23% slower than elm litter (P = 0.03).
Reporting P values is more informative than using an alpha.

"There was a significant relationship between the observed and predicted percent lipid values via this method of estimation."
Describe the dependent variable as a function of the independent variable.
"Predicted and observed percent lipid values were significantly related via this method of estimation."
"Lipid values predicted by this method were significantly related to measured lipids."
"Lipid concentrations were predictable from volumetric reactance in series (r^2 = 0.88)."

March 24: Statistical Considerations

Pu Ge will lead this session, using notes developed by Steve Stehman.

What is statistics? What have we learned from our data?

Topics Covered:

Sample population

Target population

Total population

Flow of design

Sampling strategy

Presenting results

ANOVA

Statistical Software:

R, SAS

Other resources:

Professors in FNRM.
Pu Ge recommends: *Naked Statisics* by Charles Wheelan, which uses examples to explain statistics, and addresses common mistakes and how to avoid them. A fun read.
Read articles when you have specific questions.

Amazon book
https://www.amazon.com/Naked-Statistics-Stripping-Dread-Data/dp/B00CH7FWWU/ref=sr_1_1?dchild=1&keywords=9780393089820&linkCode=qs&qid=1585067855&s=books&sr=1-1

Figure guide
https://apastyle.apa.org/style-grammar-guidelines/tables-figures/figures

ANOVA
https://www.r-bloggers.com/anova-%E2%80%93-type-iiiiii-ss-explained/
The manuals associated with R packages are helpful.

Mar 26: Publication Productivity (readings)

Let's test whether you all can get access to read these from home.

***
Rabia - Yes its downloadable
Changing patterns of publication productivity: accumulative advantage or institutional isomorphism? Dey, Eric L. ; Milem, Jeffrey F. ; Berger, Joseph B. Sociology of Education, Oct, 1997, Vol.70(4), p.308(16)

Thomas - Publication Productivity among Scientists: A Critical Review
Fox, Mary Frank. Social Studies of Science, May 1983, Vol.13(2), pp.285-305

Publication productivity among scientists: a critical review
Mary Frank Fox
- "given the centrality of publication to scientific endeavor, the average rate of this productivity is low"
    - "half of the sample had published five or more papers in the last three years, and the other half four or fewer"
    - "7.5% of a sample of chemists receiving doctorates between 1955 and 1961 had published nothing the first decade following receipt of their degree and 11% had published only 1 article… In any given year 60% of the chemists had not published a single article"
- Social scientists less prolific than natural scientists
- Variation between scientists is very high: In one sample, 15% of the group accounted for

half of all papers published

- Psychological characteristics of productive writers
    - “Sacred spark theory” -- an inner compulsion to produce even in the absence of external rewards
    - Stamina in the pursuit of long-range goals
    - “Productive scientists show high ego strength, personal dominance, preference for precision and exactness, strong control of impulse, and a preoccupation with ideas and things rather than people”
- Biographical background of productive writers
    - Show marked autonomy, independence, and self-sufficiency early in their lives -- less concerned with others’ approval
- Work habits
    - “Intellectual craftsmanship” -- the organization of time, space, and materials
    - Habits and routine
    - Causal relationship uncertain
- Age
    - Peak in late 30s early 40s, second peak ~50
- Environmental location (institution)
    - Environment you’re in vs. environment you came from?
- Graduate school background
- Dept prestige

Publish or Perish: A Limited Author Analysis of ICA and NCA Journals. Bunz, Ulla. Journal of Communication, December 2005, Vol.55(4), pp.703-720

Jenna Cumulative Disadvantages in the Careers of Women Ecologists. Primack, Richard B. ; O'Leary, Virginia. BioScience, 1 March 1993, Vol.43(3), pp.158-165

- Attempt to explain why women scientists tend to have lower productivity
- Theory of Cumulative Disadvantages: No one factor determines this, but women face minor obstacles at every career stage which accumulate over time and result in lower productivity
- Followed up in 1988 with graduate students (men and women) who had attended the OTS tropical biology course in the 1960s and 70s about their career
- Women had lower productivity than men, and this couldn’t solely be explained by family situation (e.g., whether or not they had children)
- Factors influencing productivity: differences in mentorship experience, sexual discrimination in workplace, lack of institutional empowerment, nomadic employment (women had more temporary/part-time jobs), personal relationships disrupted by moving to advance career, moving to accommodate spouse, more family responsibilities, less help from spouse, lower salaries, lower job security (e.g., more women were in nontenure roles)
- Solutions: grant programs for women help but aren’t enough, attitudes need to shift and

this will be slow, husbands and male colleagues are good allies in this, and as more women enter the field, there will be increased opportunities for mentoring and collaboration among women

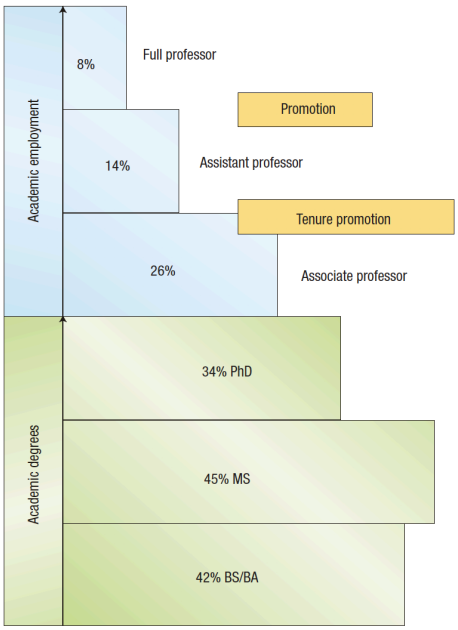
Changling

Holmes, M., O'Connell, S., Frey, C. et al. Gender imbalance in US geoscience academia. Nature Geosci 1, 79–82 (2008). https://doi.org/10.1038/ngeo113

Gender imbalance in US geoscience academia

Women's under-representation-3 dominant themes: 1. The structure of academia, 2. historically low numbers of women, and 3. women's views and choices.

1. The structure of academia:



Proportions of women in each academic rank in US geoscience academia.

2. historically low numbers of women:

Table 1 Percentage of women at varying degree-granting institutions.

	2004–2005	2001–2002	2000–2001	1996–1997
Bachelor's-granting	18	17*	16	11*
Master's-granting	17*	14	15	12*
PhD-granting	13*	12	12	9*
Total	14	13	13	10*

Table 2 Percentage of women by rank at PhD-granting institutions.

	2004–2005	2001–2002	2000–2001	1996–1997
Assistant professor	26*	23	21	20*
Associate professor	14	14	15	14
Full professor	8*	8	8	5*
Chair, Head	10*	8	6	4*

3. women's views and choices:
   Stereotypes
   - "Female" refers to women's views and choices: that is, there are few women in geoscience in
     academia because women choose not to be there and/or women lack the skills or talent needed to succeed there
     a problem with the way the tenure track and academic institutions are structured makes it difficult for women to cope with family issues and be a successful academic.
   - Ten male responses, and one associate/full female professor, suggested: "women are choosing a different career path", "females don't like field work", "females in general have a low interest in the subject matter", "females lack self-confidence", and "females in general prefer to teach".

Pu Ge: Torrie, Alex et al. "Publish or Perish – How to Avoid Perishing." International Journal of Surgery 10.8 (2012): S5–S5

Both the success rate and quality of trainees in peer reviewed publication was highly significantly associated with their undertaking projects supervised by a senior author with a strong publication record (p 0.0001) and (p ¼ 0.0002) respectively.

To improve your probability of achieving a peer-reviewed publication you should engage in research with a senior author who has >46 peer-reviewed publications.

Furthermore, collaboration with a fellow registrar was also highly significant (p 0.0001).

Both the success rate and quality of trainees in peer reviewed publication was highly significantly associated with their undertaking projects supervised by a senior author with a strong publication record (p 0.0001) and (p ¼ 0.0002) respectively.

- First, trainees are more likely to achieve both a greater absolute number and the quality of peer-reviewed publication (indicated by the journal impact factor) if they engage in research with a senior author with a strong publication record (indicated by the senior authors' absolute number of PubMed publications).
- Second, trainees are more likely to achieve peer reviewed publication if they collaborate with a fellow rotational registrar.

Faculty's subtle gender biases favor male students. Corinne A. Moss-Racusin, John F. Dovidio, Victoria L. Brescoll, Mark J. Graham, Jo Handelsman. Proceedings of the National Academy of Sciences Oct 2012, 109 (41) 16474-16479; DOI: 10.1073/pnas.1211286109 (Open Access)

Sonnert, Gerhard, and Gerald Holton. “Career Patterns of Women and Men in Sciences.” American Scientist 84.1 (1996): 63–71.

Fox, Mary Frank. “Gender, Family Characteristics, and Publication Productivity Among Scientists.” Social Studies of Science 35.1 (2005): 131–150.

Kyvik, Svein. “Motherhood and Scientific Productivity.” Social Studies of Science 20.1 (1990): 149–160.

Henry Suitor, J., Dorothy Mecom, and Ilana Feld. “Gender, Household Labor, and Scholarly Productivity Among University Professors.” Gender Issues 19.4 (2001): 50–67

Male reseacher do more work within the home when compared to males.
Surveyed 673 faculty members

	ALL FACULTY		TENURE-TRACK FACULTY	
WEEKLY HOURS	**Men (n=365)[1]**	**Women (n=235)**	**Men (n=319)**	**Women (n=145)**
Research[2]	19.15** (12.4)	12.92 (11.8)	20.65** (11.9)	17.33 (11.4)
Teaching	19.79** (11.0)	24.17 (14.3)	18.32+ (9.7)	20.15 (12.5)
Administration/ Service	12.57** (13.1)	9.63 (12.9)	13.54 (13.1)	12.53 (14.8)
TOTAL WORK HOURS[3]	**51.46** (13.9)**	**46.87 (15.5)**	**52.51+ (13.36)**	**50.25 (14.4)**
Household Labor[4]	10.77** (3.5)	13.90 (7.89)	10.96** (6.5)	13.83 (7.7)
TOTAL HOURS	62.19 (15.7)	60.85 (16.9)	63.41 (15.0)	64.16 (16.0)

Table 4
Mean Number of Hours Per Week that Men and Women Faculty with Children at Home Reported Spending on Work and Home Responsibilities (Standard Deviations in Parentheses)[1]

	ALL FACULTY		TENURE-TRACK FACULTY	
WEEKLY HOURS	**Men (n=159)**	**Women (n=79)**	**Men (n=142)**	**Women (n=41)**
Research	19.02** (11.7)	9.12 (9.5)	20.50** (10.7)	14.51 (9.1)
Teaching	19.17** (10.2)	24.20 (13.2)	18.61 (9.7)	20.44 (12.5)
Administration/ Service	11.20* (8.1)	10.20 (10.5)	11.74 (9.7)	12.48 (12.5)
TOTAL WORK HOURS	**49.40** (13.4)**	**41.77 (15.7)**	**50.85 (12.3)**	**48.10 (14.9)**
Household Labor	10.87** (6.0)	16.82 (8.4)	11.01** (6.1)	16.70 (7.2)
Child Care[2]	13.55** (12.2)	24.99 (17.7)	12.89** (11.9)	27.47 (17.6)
TOTAL DOMESTIC LABOR HOURS	**24.42** (15.3)**	**41.81 (20.2)**	**23.86** (15.3)**	**44.17 (19.3)**
TOTAL HOURS	**73.63** (19.22)**	**83.92 (26.7)**	**74.54** (18.7)**	**92.65 (21.5)**

Etkowitz, Henry et al. “The Paradox of Critical Mass for Women in Science. (change in Workplace Structure Needed to Integrate Women Successfully in Academic Science Departments).” Science 266.5182 (1994): 51–54.

New articles:
Pu Ge - Torrie, P.A.G et al. “Publish or Perish - How to Avoid Perishing.” Medical Teacher 35.3 (2013): 260–260. Web

Pu Ge - Torrie, Alex et al. “Publish or Perish – How to Avoid Perishing.” International Journal of Surgery 10.8 (2012): S5–S5

Dhillon, Sharanjit Kaur, Roliana Ibrahim, and Ali Selamat. “Factors Associated with Scholarly Publication Productivity Among Academic Staff: Case of a Malaysian Public University.” Technology in Society 42 (2015): 160–166.

Faculty publication productivity, collaboration, and grants velocity: using curricula vitae to compare center-affiliated and unaffiliated scientists. Gaughan, Monica ; Ponomariov, Branco. Research Evaluation, 06/01/2008, Vol.17(2), pp.103-110

Not available at Moon and have to pay for online:
Creamer, E. G. "Equity and equality in measuring faculty productivity." Women in Higher Education 7.9 (1998): 7-8.

Holmes, M., O'Connell, S., Frey, C. et al. Gender imbalance in US geoscience academia.

Nature Geosci 1, 79–82 (2008). https://doi.org/10.1038/ngeo113

More recent articles that Jenna found:

[http://Historical comparison of gender inequality in scientific careers across countries and disciplines]Historical comparison of gender inequality in scientific careers across countries and disciplines (2020)

- Global study of publishing record of over 1.5 million authors
- "We find that, paradoxically, **the increase of participation of women in science over the past 60 years was accompanied by an increase of gender differences in both productivity and impact**. **Most surprisingly, though, we uncover two gender invariants, finding that men and women publish at a comparable annual rate and have equivalent career-wise impact for the same size body of work**. Finally, we demonstrate that differences in publishing career lengths and dropout rates explain a large portion of the reported career-wise differences in productivity and impact, although productivity differences still remain."

Gender Differences in Publication Productivity Among Academic Scientists and Engineers in the U.S. and China: Similarities and Differences (2017)

- Women in the U.S. published less than men in science, but published equally in engineering
- **Women and men published at equal rates in the sciences in China, but more women than men published in engineering**

Gender bias when assessing recommended ecology articles (2018)

- Editors voted on articles, and the study analyzed the papers in the to 100
- "Female voters tended to rank articles more highly as the number of male coauthors increased, and the relationship between article rank and proportion of male co-authors was even stronger when only men voted. **This effect disappeared after testing only articles that the editors declared they had actually read**."

Kris: Based on my own past research on this topic:
Intelligence is not relevant, beyond a certain point. BIg 5 personality factors are much more predictive. Conscientiousness provides the biggest impact.

https://onlinelibrary.wiley.com/doi/full/10.1111/j.1467-9310.2011.00665.x

An investigation of the personality traits of scientists versus nonscientists and their relationship with career satisfaction

Age Differences in Personality Traits From 10 to 65: Big Five Domains and Facets in a Large Cross-Sectional Sample
https://www.researchgate.net/publication/49696299_Age_Differences_in_Personality_Traits_From_10_to_65_Big_Five_Domains_and_Facets_in_a_Large_Cross-Sectional_Sample

Nick
https://www.nytimes.com/2019/03/05/science/women-scientists-grants.html
https://jamanetwork.com/journals/jama/fullarticle/2726973?guestAccessKey=192c8aa5-23b2-400f-87d1-1b5f39c1e6d3

April 7: Proposals

How is your paper?

Tips and Tools
Henry: writing out weekly task to be completed
Thomas: I appreciate the tip to use ATracker for time management; like Henry, I also use a whiteboard to keep track of commitments and tasks that need to get done
Jenna: ATracker to keep track of time spent working, try to make goals to finish a project/task over the weekend (work on one thing for a longer stretch of time rather than try to work on many small tasks in one day/weekend, to limit amount of time procrastinating/reviewing what was done before), like Henry I have lists of tasks/commitments that need to be done pasted on my wall above my computer so I see it all the time
Pu Ge: Mind mapping technique, there are many apps related to this. General process I use is mapping out a topic you are thinking and then convert them to tasks.
Changling: Calendar App-Timepage, 2020 Planner- try to complete 3 important tasks everyday
Ruth: Challenge yourself, enough to be motivating but not discouraging. I want to finish a paper a week! This is challenging enough to make me want to stop reading the news.

How to find opportunities

Who is eligible to submit to NSF?
I subscribe to a daily digest of NSF funding opportunities, you can tailor your announcement.
Grants.gov allows you to sign up for alerts in specific areas.
NYS grants gateway
Private Funding Foundation Center
Someone in Moon Library used to help ESF researchers find funding opportunities and sign on

to these announcements.
Institutions limit which of their members can submit grants, usually to permanent staff. When you get a post-doc, make sure that you are eligible to submit proposals for grants that would move with you if funded.

Examples:

What's in a proposal

- Background, Project overview, Statement of work, Project schedule, Milestone payment schedule
- Figures from preliminary findings or other projects help to visualize the message and goals
- Specifically listed objectives, methods and hypotheses for each
- Includes improvements in response to earlier reviews
- Broader Impacts
- Budget
- Budget Justification: this is a place to demonstrate that you've thought things through.
- Timeline for data collection and experiment installation
- (NSF) Research Coordination Plan, Management plan, Coordination Plan
- (NSF) Intellectual Merit + broader impacts, Steering Committee, Current Activity
- Data Management Plan, Payment schedule (in a contract, not a grant)
- C.V.
- Conflicts of Interests: everyone who has co-authored a paper (within the last years). Major professor, MS and PhD students. They will also exclude as potential reviewers everyone from your institution.

Read the directions! Agencies have very specific requirements. If you don't meet them, your proposal can get returned without review.
Page limits
Deadlines

The review process:

ARCC review summary

Collaborative Research: Nitrogen vs. phosphorus limitation in temperate forests: Mechanisms contributing to colimitation review

Authorship (credit): (146,) 147,

-
- Journals are cracking down on changes to author lists, which doesn't seem like it's going

to help anything. Here is a correspondence I had this week with a journal editor (the paper was accepted today!!!) It's in reverse chronological order

On Apr 8, 2020, at 3:31 PM, Ruth D Yanai <rdyanai@syr.edu> wrote:

It's a cultural shift. Charley wrote back to me, when I shared your decision, "It is definitely a thing. I have been involved in three papers that needed authorship changes for various legitimate reasons this year. All were challenging because of pushback from the journal."

The abuse of authorship is not prevented by prohibiting changes. A decade ago, I had a student who told me he had to include his advisor from Korea on all the papers he wrote with me. Then, big surprise, he couldn't get a job at that university (the best in Korea) which I thought was because everyone hated his advisor, or at least felt bullied and resentful. I felt bullied and resentful; maybe I was just projecting.

You could help by accepting our paper! Just kidding. I hope the AE is very impressed by our thorough documentation of responses to the very helpful reviews. We'll sit tight.

Thanks for working during these difficult times. I feel so grateful that my work can continue.

x Ruth

> On Apr 8, 2020, at 2:56 PM, Sherestha Saini <Sherestha.Saini@springernature.com> wrote:
>
> Hi Ruth,
>
> Thanks so much. It really depends on the journal and the students should read the instructions. In some cases it's possible that authorship changes might be allowed with approval form the editor in chief but in almost all cases once an article is accepted, no changes are allowed.
>
> If I can help in any other way, please let me know.
>
> Best,
> Sher
>
> **From:** Ruth D Yanai <rdyanai@syr.edu>
> **Sent:** Wednesday, April 8, 2020 1:41 PM
> **To:** Sherestha Saini <Sherestha.Saini@springernature.com>
> **Subject:** Re: WATE-D-19-01997R1

Thanks so much. This will come up every year when we discuss authorship. And I'll warn them that they have to get it right the first time!

I apologize, again, for the extra trouble I caused you.

> On Apr 8, 2020, at 1:23 PM, Sherestha Saini <Sherestha.Saini@springernature.com> wrote:
>
> Dear Ruth,
>
> In general, we only allow changes if there are errors in names of the authors or if there is a legal name change. We've had this new policy for some time now since author misconduct is on the rise and we've observed cases of gift authorship where authors decide to add on authors after submission of the paper. Some also add authors who have performed language edits. This is not sufficient to be considered as a co-author. In this case, it might be better to acknowledge their contribution in the acknowledgements section.
>
> The rationale also is that all authors who have made a meaningful contribution to the work should be included during submission.
>
> In this case, we will make an exception and accept the change in authorship.
>
> Best wishes,
>
> Sher
>
> **From:** Ruth D Yanai <rdyanai@syr.edu>
>
> **Sent:** Tuesday, April 7, 2020 1:11 PM
>
> **To:** Sherestha Saini <Sherestha.Saini@springernature.com>

Subject: Re: WATE-D-19-01997R1

Sherstha,

I'm sorry I haven't caught on to this change in policy. In my long career, I have infrequently needed to add or remove authors after the submission of papers, usually due to changes in the scope or content of the paper in the revision process. It's new to be told that this is not possible. Is it related to an increase in abuse? I'm just curious (I teach a course for graduate students preparing manuscripts for publication and this is a relevant topic).

Why is there an author change form, which we went through the trouble of getting all the authors to sign and return, if no changes are allowed?

Could we withdraw the paper and resubmit it and retain the reviews and response to reviews? Then you could say that you didn't break the rule for us.

I'm sorry to make extra work for you. I promise to educate a new generation of students about these rules.

x Ruth

Ruth Yanai

Professor

SUNY College of Environmental Science and Forestry

210 Marshall Hall, 1 Forestry Drive, Syracuse, NY 13210

office: 1-315 470-6955 mobile: 1-315 345-7412 e-mail: rdyanai@syr.edu

http://www.esf.edu//faculty/yanai

> On Apr 6, 2020, at 9:52 AM, Sherestha Saini <Sherestha.Saini@springernature.com> wrote:

Hello,

I am the publishing editor of the Springer journal Water, Air and Soil Pollution. Unfortunately, we will not be able to make any changes to the authorship at this stage. During submission, the instructions for authors clearly stated the following:

Changes in authorship, order of the authors, or designated corresponding author will not be permitted after an article has been submitted. Therefore authors should ensure that the author list is correct at submission.

We can either proceed with the original list of authors, or you can withdraw your paper. Please let us know ASAP. Thank you.

Best,

Sher

Sherestha Saini, Ph.D.
Senior Editor, Environmental Sciences Journals
Springer Nature
One New York Plaza, Suite 4600
New York, NY 10004-1562
Phone - 212 460 1557

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Apr 14: Abstracts (examples)

https://drive.google.com/drive/folders/0BxXuVrpNGuD9fm1xUHdVWVhZQkxQYzB1bHVDRU5ackRpYjAteGl6AbstractsTXY5elJDeHc2Zk5SZTQ

May 4: Final Drafts

"Rare trial of open peer review allays common concerns"
https://www.nature.com/articles/d41586-019-00500-7

Advice or wishes for your fellow authors

Kris: Look at the experimental designs of other papers. A well designed experiment makes for an easy paper.
Nick: Report direction and magnitude of effects, not just significance.
Alex: Don't say, "there is no difference." Report the magnitude of difference that could be detected with your power.
Nehan: Rephrase the research question multiple times. Return to the GSE.
Mark: Turn in your assignments on time to give your reviewers a chance to give you timely responses. Feedback is helpful.
Ryan: Get the statistical skills that you need.
Blaz: Persist! It's going to be messy but you'll get feedback that will help you improve.
Alex: Don't be a perfectionist.
Dan: Before you print, make sure you have it double-spaced and line-numbered.
Ryan: Speak up if you don't understand!
Dan: Seek help from professors and co-authors.

Ruth: Thank you for an excellent semester. I really appreciated the step up in involvement, making you all authors of these notes!