Course Syllabus: **Marine Environmental Issues**
University of Oregon | Oregon Institute of Marine Biology
Fall 2023 | BI 457/557, (5 Credits)

Instructor: Aaron Galloway (agallow3@uoregon.edu); 541-346-7288
GTF: Lizzie Diehl (ediehl@uoregon.edu)
Class Time: Thursdays 8:30-5:00 (subject to adjustments, week to week)
Office hours: Galloway: Fridays 12:00-1:00:
[https://uoregon.zoom.us/j/99476609455?pwd=NHFxK2RhNzdVK1o2b2VoNUVqNnFOdz09]
Office hours: Diehl: Wednesdays and Fridays from 9:00-10:00 or by appointment. In Person or on zoom:
[https://uoregon.zoom.us/j/96868289380]
Place: Lectures: OIMB Boathouse (larger, safer gathering space given COVID concerns); lectures, group and project work: Marine Birds and Mammals and connected classroom; many field trips; some guest speakers and remote conference attendance via Zoom.

Summary:
A survey of the current issues that influence marine environments at local and global scales. We will examine several local applied case studies with guest speakers and both in person and virtual field trips. We will take an integrated approach to explore global climate change, conservation, fisheries, habitat alteration, introduced species, and pollution in the marine environment using readings, seminars, and peer-reviewed writing.

Learning Outcomes:
1) Students will gain an understanding of key issues that affect the marine environment via reading, discussion, lectures and activities. [knowledge]
2) Comprehension of the topics will be demonstrated through active participation in group activities, discussions, a term paper, which will be *peer-reviewed and 'published' in an internal course e-journal*, and a presentation. [synthesis, application, evaluation]
3) Solving difficult marine environmental problems requires an ability to think collectively in broad and creative ways. An emphasis throughout the course will be building skills in collaboration and teamwork, with groups of varying sizes. [collaboration, synthesis]

Term Paper
Every student will write a research paper, which will go through the science 'publication' process, including anonymous peer review, revisions, and replies to reviewers/editors. Top ranked papers will be published in the course journal. The papers will be a literature review or synthesis of a topic relevant to marine environmental issues or conservation biology. Papers may also conduct novel analyses on existing data relevant to the topic. The paper will be prepared per the class journal guidelines (attached in the full syllabus). Students will need to announce their term paper topic by week 3. Papers will be submitted for consideration in the course journal Marine Environmental Issues Letters (MEIL). As a result of the peer review process, a portion of the submitted and revised papers may be 'published' in MEIL in the OIMB library, and made available to future classes at OIMB.

Readings
Each week students will read one summary "overview chapter" on different climate solutions from the book Drawdown. These are short, 2-page chapters. Students can choose which topics to read about each week (there are over 100 in the book and online). Then, the student needs to find at least one peer-reviewed literature source from that chapter, download it, and read it. The reading assignment (worth 10 points) is to write a very brief summary (1 short paragraph!)

covering: which solution chapter you read, the most surprising thing you learned, which reference you found, (provide the reference in proper journal format), and one thing you found interesting from the reference document. Some weeks we will have different readings on specific focal topics. There are also additional papers that are relevant to the topics covered in this class in the Canvas 'optional readings' folder. You can write your paragraph in a word processor and paste it into the Canvas online text entry prompt in the reading assignment.

Course Modality

Each week will give 1-2 lectures (e.g., 30-45 min) on a core topic related to a major marine environmental issue, or focused on methods for synthesis research. These lectures will be given live in the OIMB Boathouse lecture hall because it is a larger space where we can all gather and still maintain safe distances. I may alternatively deliver lectures using zoom if COVID cases spike. Regardless of this, please note that this is an **in-person course** and I generally expect that we will all meet during scheduled class meeting times. I will accommodate illness and absences as described below. If you need additional flexibility UO encourages you to consider WEB courses. If you need accommodation related to a medical or other disability, you can set those up through the UO Accessible Education Center (AEC) (https://aec.uoregon.edu).

Therefore, please plan on attending lectures in real time, unless there are pandemic-related developments that require this to change [see additional notes on this below].

How instructor(s) will communicate with you

Instructors will send regular updates about small adjustments to the class schedule through **Canvas Announcements function**. *Make sure you have set up your Canvas preferences so that you receive notifications when we post new announcements*. All of the course expectations, assignments, zoom links for class and office hours, readings, lecture notes, activities, and grading rubrics are posted within Canvas.

How you can communicate with the instructor(s)

The best way to communicate with both the instructor and the TA is directly via email or by coming to office hours. The email function within Canvas is not convenient, so please do not use it if you want prompt replies. We are available during class hours and weekly during drop-in office hours in zoom (see syllabus header). In addition, we are both happy to meet with you individually if office hours aren't working for you. Please communicate your needs and we will work something out. Please cc both the instructor Aaron **and** the TA Lizzie on all questions. *We are both instructors and we will cc each other on our replies even if you don't, unless you are clear that you specifically want to only talk to one of us*.

Guest lectures with in-person excursions

In this class will have several guest visits (some in person and some on zoom) designed to spark discussion with actual resource managers and conservation practitioners. In addition, we will do several field trips. We have a large class, so field trips will require complex collaboration with some students riding in OIMB vans and if there are Covid considerations, some students may need to travel in personal cars. Field trips are designed to be low-key and entertaining visits designed simply to enrich your class experience, with no extra graded work for you.

Course Text and Supplies:

The required course text this year is: **Drawdown: the most comprehensive plan ever proposed to reverse global warming**. Hawken P, editor. 2017. Penguin Press, New York, N.Y. This book also now has additional e-supplements available on the web which you will read. This book can be

purchased used online for as little as $5, and is an important book for sharing with friends and family, which is one reason I am making the book a required reading this year.

The only supplies needed are a computer and internet for attending the Zoom classes. Please let me know if that will be a problem, I will work to accommodate you as much as I can.

Grading and Deadlines Description:

Grading will be based on following: [**1000 pts total**]. Grading rubrics used to assess the assignments will all be available within Canvas. Also, see the Schedule table below for exact times (if not already indicated in this summary) and due dates. There are no exams in this course.

1) 10% - **Readings** [100 pts] – generally 10 pts each week for brief written responses to the Project Drawdown chapters you choose to read.
2) 55% - **Term Paper** [550 pts total]
    a. Term paper **topic** due (document with title, and paragraph of ~250 words and at least 5 cited references summarizing the goal of the paper) on Fri 13-Oct by 11:59 pm (end of wk 3) [25 pts].
    b. **Intro** and **Methods** of term paper submitted by 11:59 pm on Thurs 26-Oct (wk 5) [50 pts]. NOTE: use the template format shown below and shared in Canvas or immediately lose 10 pts.
    c. Draft of **Results** and **Discussion** due on Mon 13-Nov (start of wk 8) [50 pts].
    d. **Completed** term paper submitted on Mon 20-Nov by 11:59 pm (start of wk 9) [125 pts]. Deadlines are critical; if you are late it will hold up the peer-review process.
    e. **Revisions/response** to peer review reply letter due 7-Dec at 11:59 pm (finals wk) [100 pts].
    f. **Final, complete, submission**, meeting all journal guidelines and incorporating all reviews due 7-Dec at 11:59 pm (finals wk) [200 pts].
3) 25% - **Peer Review** [250 pts] – Complete drafts of term papers are due on 20-Nov. We will distribute the papers to you for peer review the next day. Each student will review 2 papers (125 pts each). Peer reviews will be anonymous, *will maintain a civil and helpful tone*, and will be handled by instructors (journal editors). The peer reviews will follow guidelines provided below and are due on Weds 29-Nov by 11:59 pm (i.e., the day before wk 10 class). There will be an automatic loss of 25 points per day from each review every day late. The instructors will send the anonymous peer reviews back to the original authors for revisions and response on 1-Dec (end of wk 10).
4) 10% - **Exit assignment/interview** [100 pts total] – there will be an exit assignment and subsequent in person interview by each student with the instructors on Finals day (details given in wk 10) to assess/test whether AI tools were used [use of generative AI to help with writing is not allowed in this class – see below].

General Student Conduct Code:

All University of Oregon students are expected to follow the rules of the Student Conduct Code. These can be found at (http://policies.uoregon.edu/vol-3-administration-student-affairs/ch-1-conduct/student-conduct-code). Plagiarism is subject to the disciplinary process outlined in the code. Students are expected to be honest and ethical in their academic work. For example, you are all surely aware by now that there are many resources available to professors for passing writing through plagiarism filters. One of the goals of the class is to teach you how to write in a way that cites other work properly and provides correct attribution. If you have any uncertainty about how to do this please just reach out to us as you are working through it.

Policy on the use of Generative AI:

One of the learning goals for this course is to help you, the student, develop your own voices, perspectives, and confidence in scientific writing (i.e., evidence-based writing following a specific format). The use of generative AI or any form of AI to 'assist' you with this is counter-productive to the mission of this class. You might find usage for these tools later in life or for other applications, and I have no judgement or purview of that. But in this class, it is my job to help YOU learn to do the research and write about what you find. In this context, my policy is that the use of AI for your writing assignments, even as a 'helper', is wholly unacceptable. Thus, in this class: **The use of GenAI or AI tools for creating content is not allowed**. Students may not use GenAI tools in this course to produce course materials or assignments in whole or in part. All work you submit for this course toward completion of course requirements must be your own original work done specifically for this course and without substantive assistance from others, including GenAI. Work you've completed for previous courses or are developing for other courses this term also should not be submitted for this course. In accordance with UO policy, if I believe you've handed in work created all or in part by GenAI, I will submit a report of suspected academic misconduct to the Office of Student Conduct and Community Standards for that office to make a determination of responsibility and, if warranted, assess a grade penalty. If you have any questions or doubts, please ask! Also see the UO website: https://teaching.uoregon.edu/teaching-and-generative-ai.

Classroom Community Expectations:

All members of the class (both students and instructor(s) can expect to:

- General COVID guidelines: As per UO policy, all students are welcome to wear a mask while indoors. We are not required to maintain 6' physical distancing inside, but we are doing our best at OIMB to still set things up this way whenever possible. Stay home if you are sick, wash hands frequently, and watch for signs and symptoms of COVID with daily self-checks.
- Participate and Contribute: Students are expected to participate by sharing ideas and contributing to the collective learning environment. This entails preparing, following instructions, and engaging respectfully and thoughtfully with others. Together, we will establish more specific participation guidelines and criteria for contributions in our first weeks of the term.
- Expect and Respect Diversity: All classes at the University of Oregon welcome and respect diverse experiences, perspectives, and approaches. What is not welcome are behaviors or contributions that undermine, demean, or marginalize others based on race, ethnicity, gender, sex, age, sexual orientation, religion, ability, or socioeconomic status. We will value differences and communicate disagreements with respect. We may establish more specific guidelines and protocols to ensure inclusion and equity for all members of our learning community.
- Help Everyone Learn: Our goal is to learn together by learning from one another. As we move forward learning during this challenging time, it is important that we work together and build on our strengths. We need to be patient with each other, identify ways we can assist others, and be open-minded to receiving help and feedback from others. No one should hesitate to contact me to ask for assistance or offer suggestions that might help us learn better.

Accessibility:

If there are aspects of the instruction or design of this course that result in disability-related barriers to your participation, please contact the instructors—your success and the success of your peers matters. You are also encouraged to contact the Accessible Education Center in 164 Oregon Hall at 541-346-1155 or uoaec@uoregon.edu. The AEC offers a wide range of support services including note-taking, testing services, sign language interpretation and adaptive technology.

Absences:

The policy for attendance is that all students are expected to attend all classes. Missing more than one day of class is significant and may be problematic for your learning in this class. Because OIMB only meets 10 times a quarter (only 9 times this term due to holidays), missing one or two days of class is much more significant than missing a couple hour lecture / labs. I cannot make up the field trips, class/group activities, or guest lectures but I will provide recordings of my lectures in case you miss a class. I will do my best to accommodate absences associated with reasonable explanations (COVID, travel, sickness, other extenuating circumstances).

Academic Disruption:

In the event of a campus emergency that disrupts academic activities, course requirements, deadlines, and small details on the grading percentages are subject to change. Information about changes in this course will be communicated as soon as possible via announcements on Canvas. If we are not able to meet face-to-face, students should immediately log onto Canvas and read any announcements and/or access alternative assignments. Students are also expected to continue coursework as outlined in this syllabus or other instructions on Canvas. In the event that the instructor of this course has to quarantine, this course may be taught online during that time.

Flexibility under difficult circumstances:

In summary, I recognize that these are difficult and upsetting times, in regards to climate change, systemic racism, and an ongoing global pandemic. In light of this, I commit to working to make this course as accommodating as possible given the challenging circumstances we are currently experiencing. This can mean many things, but a few examples are:

- I will do my best to accommodate your schedule if you can't make it to class.
- I am not doing "participation points" this year. It is up to you to decide what you will put in to the class; what you will get out of my class is directly proportional to what you put in.
- You are expected to attend lectures and guest talks in person, but if something comes up for you and you can't make it every now and then, you can review lecture notes or notes from others in the class. If you just miss one or two lectures, I don't need to have any excuses or reasons. But I hope no one takes this flexibility too far. I will keep notes on attendance, and I'd like to know if you are going to miss >80% of the lectures/classes.
- I have adjusted my class to be as flexible as possible on deadlines, except for the few deadlines that require everyone to be on the same page (e.g., peer reviews, final products).
- Please let me know if anything is going on in your life that requires assistance. I don't need to know details if you don't feel comfortable sharing. The following resources are available to you as a student.
    - University Health Services or call (541) 346-2770
    - University Counseling Center or call (541) 346-3277 or (541) 346-3227 (after hrs.)
    - MAP Covid-19 Testing

Mandatory Reporter Status:

Your instructors are designated reporter/student-directed employe]. For information about our reporting obligations as employees, please see Employee Reporting Obligations on the Office of Investigations and Civil Rights Compliance (OICRC) website. Students experiencing any form of prohibited discrimination or harassment, including sex or gender-based violence, may seek information and resources at safe.uoregon.edu, respect.uoregon.edu, or investigations.uoregon.edu or contact the non-confidential Title IX office/Office of Civil Rights Compliance (541-346-3123), or Dean of Students offices (541-346-3216), or call the 24-7 hotline 541-346-SAFE for help. Your instructors are also mandatory reporters of child abuse. Please find more information at Mandatory Reporting of Child Abuse and Neglect.

Table 1. Weekly Schedule (details subject to change)

Marine Environmental Issues 2023 Schedule for Students								
wk #	**Date**	**Theme of the week**	**Special Activity?**	**AM start times and summary**	**Lunch**	**PM start times and summary**	**What is due, at what time? ****	**Readings completed *PRIOR TO* class:**
1	28-Sep	**Intro to Marine Environmental Issues and Project Overview**	**Trip to Cape Arago**	8:30 Welcome. 9:30 Field trip. 11:00 Class overview, expectations, assignment formats.	break	1:00 Lecture: Marine pops, life history; 2:00 Activity: Intro to library lit search/synth; 3:00 term paper guidelines; 4:00 Lecture/activity intro to Zotero.	Reading summary 1; Friday 29-Sep 11:59 pm	Drawdown solution of choice
2	5-Oct	**Synthesis Methods, Local Issues 1**	**Research at OIMB; Offshore wind in Oregon**	8:30 Activity on what the most important marine environmental issues are; 10:30 Lecture on synthesis research methods	break	1:00 guest lecture from Mike Graybill on offshore wind farms in Oregon; 2:30 break; 3:00 Research/ library time for term papers (AG+LD will be available)	Reading summary 2; Weds 4-Oct 11:59 pm	Drawdown solution of choice in energy section, and Garthe et al. 2023
3	12-Oct	**Local Issues 2,** Sea Otter Science Symposium	**Should we reintroduce sea otters to Oregon? Trip to Cape Arago**	8:30-12 Watch Sea Otter Symposium talks; meanwhile, student meetings with AG+LD to talk about projects	break	1:00 guest lecture from Elakha Alliance's Kyle Motley, 2:00 trip to Cape Arago to talk about sea otters, 3:00 sea otter population model lab.	Reading summary 3, Thursday 12-Oct by 11:59 pm; Term paper topic: Friday 13-Oct by 11:59 pm,	Drawdown solution of choice
4	19-Oct	**Conservation through Outreach and Education**	**All day field trip to Newport Oregon Aquarium with behind the scenes tour**	7:30 Depart OIMB for Newport 10:00 Behind the scenes tour at OCAq	lunch at the aquarium	11:30 Guest talk Dr. Kerry Carlin-Morgan, OCAq conservation mission; 12:30 Aaron lecture on Intro + Methods writing; 2:00 head back to OIMB.	Reading summary 4, Thurs 19-Oct 11:59 pm	Drawdown solution of choice
5	26-Oct	**Local Issues 3** Human alterations to Coos Bay	**Trip around Coos Bay Estuary**	8:30 Meet at the boathouse for intro lecture with Dr. Jan Hodder (OIMB prof emeritus), then caravan around Coos Bay area	lunch in the field	1:00 Continue Coos Bay area tour. 3:00 Research/ library time for term papers (LD+AG will be available)	Intro & Methods and Reading summary 5 due 26-Oct 11:59 pm	Drawdown solution of choice
6	2-Nov	**Deep Sea Mining** and **Local Fisheries Management**	**Guest talk on Deep Sea Mining, Research at OIMB**	8:30 Lecture: Deep Sea Mining; 9:30 break; open project work time with individual student progress meetings w/AG; 11:00 Guest talk/discussion with Prof. Lisa Levin on deep sea mining	break	1:00 Guest talk by Scott Groth on Oregon shellfisheries management; 2:00 break; 3:00 Activity: workshop on synthesis results and figures	Reading summary 6, NOTE this is due the day before class, on Weds 1-Nov at 11:59 pm	https://www.dosi-project.org/, Levin et al. 2020
7	9-Nov	**NO IN-PERSON CLASS ON THURSDAY - You will be attending the State of the Coast meeting in Newport on 4-Nov instead. This will also be a chance to remotely attend additional talks from the Elakha Alliance Sea Otters Science Symposium.**					Report from conferences due on 9-Nov at 11:59 pm.	Reading 6: Elakha Alliance sea otter reintroduction feasiblity study, attend 3 sessions of Otter Sympos.
8	16-Nov	**Pollution, marine plastics, alternative energy**	**Morning field trip to Washed Ashore in Bandon**	8:30 Lecture: Marine pollution; 9:15 depart for Bandon; 10:00 Washed Ashore visit and art workshop	lunch in Bandon	1:00 Depart for OIMB. 2:00 Guest talk TBD; 3:15 break; 3:30 Lecture on how to do peer review; 4:30 Open questions on paper writing	Draft of Results & Discussion due Monday 13-Nov 11:59 pm; Reading summary 7, due 16-Nov 11:59 pm	Drawdown solution of choice
9	23-Nov	**NO IN-PERSON CLASS ON THURSDAY, due to Thanksgiving holiday**					Completed term paper due 11:59 pm 20-Nov. No reading.	None
10	30-Nov	**Future of Fishing, MPAs**:	**Trip to Port Orford [not yet confirmed]**	8:30 Lecture: Fishing methods; 9:00 depart for Port Orford 10:30 Port Orford field station and Guest talk with Tom Calvanese and PO fishermen	lunch in Port Orford	2:00 drive back to OIMB; 3:30 Lecture on benefits of MPAs and activity with FAO synthesis data	Peer reviews of term papers due by 29-Nov, 11:59 pm. Reading summary 8, due 30-Nov at 11:59 pm	Drawdown solution of choice
11	7-Dec	**Finals week: Exit Interview**	Individual meetings with all students	9:00 student meetings (sign up for 15 minute slots)	break	limited class in the afternoon	Exit assignment and final paper with response to reviews due by 8:00 am 7-Dec.	None

Peer Review Guidelines:

Each student will review two submitted papers. Reviewers are required to write a ~1-2-page report about the submitted paper. ***Each review should have the following 3 sections***:

1) Overview: briefly summarize the scope of the paper and the main positive attributes
2) General Comments: numbered general points or comments that the author should address in the revision (but not grammatical changes here). Numbering of each separate comment is important because this gives the original author a specific reference point to talk about in their response and revision.
3) Specific Comments: this is the place for specific grammatical suggestions or more 'minor' suggestions for changes.

It is critically important that the tone of the review is respectful to the original author. Provide constructive feedback in a friendly, gentle, and non-hostile way. Failure to maintain a reasonable tone in the review may result in a loss of some or all points for that review. I will screen reviews before I distribute them to the original authors to do my best to make sure no feelings get damaged because of this process. Do not use word's track changes for your review. Formulate all comments in the review document.

One of my rules for peer review is that I write my review as if I am going to sign it with my name and email address. In other words, do not hide behind the anonymity of peer review. Also, think of peer review to provide suggestions rather than demands. For example, instead of saying "cut lines xx-xx because they are not supported by the citation", say "I suggest the authors revise lines xx-xx, because as worded, it does not accurately represent the citation they use". See the difference? "I suggest..." is a very important phrase. Also, refer to the authors in the 3rd person ('the authors') rather than directly. It comes across as less personal and therefore less antagonistic when the comment is critical.

The Editor-in-chief of Marine Environmental Issues Letters will make the final decision of whether to offer 'publication' after the authors do their revisions.

If you do not follow the required guidelines of this review, you will not receive full credit for your effort.

Guidelines for course e-journal: ***MARINE ENVIRONMENTAL ISSUES LETTERS (MEIL)***

With a mission of cataloging the top term papers from the OIMB annual Marine Environmental Issues course.
Editor-in-Chief (EIC): Aaron Galloway (agallow3@uoregon.edu)

Manuscript Submissions:

The MEIL e-journal encourages interdisciplinary submissions, synthesizing novel marine conservation science and policy, which are aimed at advancing conservation goals. The top ranked 25%-33% of the term papers that advance through in-class peer review will be published in this unofficial e-journal, and made available to future OIMB Marine Environmental Issues class students, with the permission of the authors. There is one type of article published in MEIL:

- **Letters:** novel findings with relevance for practice or policy (synthesis/analysis of existing data or new data)

Guidelines for Authors: [5 of 15 points for the final submission depend on guidelines #2-6] – see the deadlines for the dates in the above sections

1) Do not plagiarize. Your first full draft will need to be submitted and through the Canvas plagiarism detection software.
2) The final, revised, term paper submission must be delivered to the Canvas by the deadline. The title of the term paper must be: "AuthorLastName_TermPaperFinal_YEAR-MO-DY". **If you do not follow this naming guideline you will immediately loose 5 points.**
3) Text of submissions should between roughly 3,000 and 3,500 words and contain no more than 3 tables and/or figures. Word count applies to article body text (see below).
4) **Minimum** of 20 references of primary literature cited. In-text citations and Literature Cited sections must conform to the format of the guidelines described below (largely borrowed from Conservation Biology, a prominent journal in the field)
5) Articles must include the following 6 sections, with each section separated by page breaks:
    a. Cover page (title, author, author affiliations, up to 5 keywords, acknowledgments) – This page is NOT circulated to the peer reviewers.
    b. Title (maximum of 20 words) and Abstract (maximum 200 words) page
    c. Body text: Introduction, Methods, Results, Discussion, Conclusion, Literature Cited.
        i. The Methods section will describe how authors searched for and collated the data.
    d. Tables (editable within word tables required), with table caption above table
    e. Figures (.png or TIFF files, 300 dpi embedded in the word file), with figure captions directly under each figure (no more than 100 words per caption). Figures cannot be already published in other papers, even if they are cited. Figures may include data from other papers (if those papers are cited) and the figures are prepared by scratch by the author.
6) Use the manuscript template provided in Canvas **[REQUIRED]** to ensure the manuscript meets the following requirements:
    a. Use 12-point Times New Roman font (REQUIRED), for all parts of the manuscript
    b. Margins of the document must be 1" on all sides
    c. Text must be 1.5 spaced (do not get creative)
    d. Line numbers and page numbers are required (do not change the template)
    e. Mind the required page breaks between sections! (do not change the template)
7) After getting feedback from the peer review process (2 peer-reviewers from class, and another review from the instructor or GTF), the author will need to respond to the suggestions of the peer reviewers, carefully responding to **every** suggestion/criticism in a reply letter and making changes to the main manuscript file accordingly. The revised manuscript AND the reply letter will be considered by the OMCBL editors (Instructor and GTF) when deciding whether to publish the paper.
8) Papers accepted for "publication" will undergo additional formatting by the authors upon acceptance.

Citation guidelines for MEIL: (modified from Conservation Biology author guidelines)

It is required that you use a citation manager! Zotero, Mendeley, Endnote, etc. all have free products... download the 'Conservation Biology' Style. Do not cite work or data that have not been published or are not available. If the data are available in a publicly accessible database, you may cite that.

In-text citations

- In the body of the paper order citations from oldest to newest and use name-year format.
- In most cases, enclose citations in text in parentheses. "Populations in sagebrush have higher reproductive success than populations in cheatgrass (Bird & Tree 2000)." is better than "According to Bird and Tree (2000), populations in sagebrush . . . ."
- Use an ampersand (&) between author surnames when the citation is parenthetical: (Bird & Sanchez 2010); but separate with *and* if not parenthetical, e.g., "Our results are consistent with the predictions of Wolf and Rhymer (2011)."
- For citations with more than 2 authors, use et al.: (Hatchwell et al. 1996). Do not italicize et al.
- List parenthetical citations chronologically (from oldest to most recent) and separate entries with a semicolon: (Zorenstein et al. 1991; Waddell & Fretwell 2001).
- Separate the years with commas when citing multiple papers by the same author: (Cox et al. 1991, 1992; Chapman 2001).
- Ensure that all references cited in text are listed in Literature Cited and vice versa.
- Avoid "in. lit." citations. Provide the original citations.

Literature Cited section

- Provide the full names of all journal titles. Do not italicize titles.
- If there are more than 10 authors, use et al. (Howard G, et al.) instead of listing the 10 names.
- Papers in review and personal communications should not be included in Literature Cited.
- Proceedings and abstracts from conferences may be cited only if they have a "publisher" and the location of the publisher can be provided.
- Use the citation manager to build your ref cited BUT VERIFY IT HAS WORKED CORRECTLY.

Example Citations

Journal articles: ***You can add the DOI at the end if it is available***

Christensen ND, Eu J, Hebbble W. 2003. Ecology of cranberry bogs: a case study. Ecology **59:**1147–1167, 1178–1187. DOI: 10.1371/journal.pbio.1001222

Reed, FM. 2001. Title of paper. Journal **13**(supplement 1):172–180.

Edited books:

Cran B, Boy C, Shi L. 1911. Native forest birds of Guam. Pages 4–8 in Wu T, Lee L, editors. Flora and fauna of Guam. 2nd edition. Tell Books, Sydney.

Reports:

Barnes J, Craig S. 2003. Conservation status of riparian areas in southeastern Oregon. General technical report N-24. U.S. Fish and Wildlife Service, Portland, Oregon.

Internet sources other than journals:

Include the name of the organization hosting the website, their geographical location, and an access date (month year).

Carne A. 2003. Ranges of endangered Colombian birds. BirdLife International, Cambridge, United Kingdom. Available from http:www.BLI.org/pub2/birdranges (accessed March 2014).

PLEASE, PLEASE, PLEASE:

Fix the problems you find in various citation downloads IN THE SOURCE program. Deal with italics in the source program by entering words you want to italicize.