University of Wisconsin-Madison • Envir St 260: Introductory Ecology • 3 credits

Lectures: TR 8:50-9:40 a.m. in Birge Hall 145

Prerequisites: None

Instructor: Adrian Treves, PhD • 30A Science Hall, Nelson Institute for Environmental Studies
http://faculty.nelson.wisc.edu/treves/ • 608-890-1450 • atreves@wisc.edu (preferred method)

Student hours: TR 10-11 a.m. except Sep. 11, Oct. 11, and to be announced other exceptions

Instructional mode: Lecture and discussion

Teaching Assistants (TAs):

Francisco Santiago-Ávila
Office: room 103 of the Bradley Memorial Building
Office Hours: Tue. 10-12 am first come first served
Preferred contact method: email santiagoavil@wisc.edu

Naomi Louchouarn
Office: room 104 of the Bradley Memorial Building
Office Hours: Thurs 1-3 pm
Preferred contact method: email louchouarn@wisc.edu

Communicating with instructor or your TA

1. First check the syllabus and CANVAS if you have a question – most are answered there.
2. If your question remains unanswered, or for all course mechanics questions ask your TA not the instructor. (First-time no penalty, but repeated issues may incur a penalty.)
3. For content questions (i.e., ecology), or if your TA cannot answer your question, then you should email the instructor. Thanks for respecting these rules; they are essential in large classes like this one.

Discussion sections begin the week of Sep 10th (they are strongly recommended but not required). No discussion week of Sep. 4th, and no discussions on exam weeks: Oct. 2nd, Nov. 6th, Dec. 11th.
If you'd like to be considered for a change in discussion section, please be aware: (a) some are FIG sections so changes are prohibited, and (b) it is your responsibility to find a class-mate willing to switch out of the section you seek and into your current section. Neither the instructor nor the TAs can take time or effort for individual issues such as these.

Course description and expectations: This course is aimed at first- and second-year students who are considering a natural science major and at older students majoring in other fields who want experience with an interdisciplinary course in the natural sciences. The primary goal of this course is to place ecological thought in an interdisciplinary framework that encompasses the ecology of humans as another unique species evolving and interacting within Earth's ecosystems. We focus on the biosphere (i.e., only superficial treatment of the ecology of water, energy, chemical cycling, inorganic substrates, etc.), and introduce major branches of ecology from community ecology and ecosystems to population ecology to behavioral ecology. In particular, we focus on global sustainability issues and conservation science. We use gray wolf recolonization of Wisconsin as a lens to examine conservation of ecosystems and endangered species worldwide. This course will provide students with a foundation in ecology. After completing this course students will be ready for more advanced work in ecology or ready to apply ecological principles to public policy debates as consumers, voters, and professionals.
To integrate human behavior and ecology, and to fully understand ecosystem function and change, we will compare Wisconsin and U.S. ecosystems to ecosystems in several other countries using case studies and discussion sessions. This course has the following desired learning outcomes:

- Develop a conceptual framework for understanding ecosystem process and pattern with humans integral to it.
- Enhance your understanding of how humans interact with nonhuman ecosystem elements

- Explore how ecological science can help resolve modern environmental problems.
- Integrate new ideas from international and interdisciplinary perspectives on the environment.
- Increase interest in environmental studies and ecology.

Expectations: Instructors expect students will arrive on time for class. If you arrive late to lecture, enter in a non-disruptive manner please. Instructors expect all students will complete assignments by the due date listed in the syllabus. Assignments must be your own original, creative thinking (see 'Fair credit to other authors' warning below). Instructors expect students to notify ahead of time of late assignments except in the case of sudden illness (see below). Without such notification, assignments will lose 25% of their value immediately and 25% for each full day late. Appropriate reasons for late assignments include: medical emergency for self or immediate family (notify us before or during the midterm) or professional travel (this requires formal letter of explanation from the host or agenda showing student's name). You can expect us to deliver graded assignments no more than two weeks after submission (except midterm 3). If you request a re-grade from the instructor, who will re-grade the entire assignment, which may result in a loss of points compared to what your TA gave you.
Grading: The course will be graded over 400 points divided into the following items:
25% = 1st Exam (100)
25% = 2nd Exam (100)
25% = 3rd Exam (100)
15% = 3 study guide assignments (3 x 30 points each, drop the lowest score)
7.5% = Unannounced quizzes (4 x 10 points each, drop the lowest score)
2.5% = TA discretion for participation in Discussions (10 points)
There will be no final exam.

Required Readings
The Balance of Nature: Ecology's Enduring Myth, J. Kricher (2009) Princeton U. Press, no cost
http://ebookcentral.proquest.com/lib/wisc/detail.action?docID=457846
Additional readings provided as PDFs on CANVAS.
Recommended: The Oxford English Dictionary http://www.oed.com.ezproxy.library.wisc.edu even if you think you know the English language well ☺ (Professor Treves uses it every week)
Schedule of class meetings and assignments
You may find yourself lost in class if you do not keep up with the assignments (reading especially).

Reading assignment 1: read this syllabus, read Ch. 1 in Kricher, and the following short articles on science in CANVAS Files under "First readings".

Section 1: Evolutionary ecology

1. **Introduction and overview**. Next assignment: Read Ch. 9 & 10 in Kricher.
2. **Lecture: Seven million years of human ecology** (hints on studying included in pdf). Next assignment: Read Ch. 2 & 3 in Kricher
3. **In-class exercise:** Watch part of Judgment Day in class and independently begin study guide 1. Next assignment: complete study guide 1 after finishing "Judgment Day: Intelligent Design on Trial" (see CANVAS for details and due dates on all study guides). Read Ch. 4 in Kricher, then study pdf lecture "Evolutionary Ecology Part A", "Talk about an ancient mariner", and "Why does sex exist" in CANVAS before next class.
4. **Lecture: Evolutionary ecology Parts A and B**: Struggle for survival and the priority of reproduction. Next assignment: Read Ch. 5 in Kricher, then study pdf lecture on "The history of ecological thought Part 1".

Students whose religious observances conflict with a mandatory assignment are asked to inform their TA as soon as possible and no later than 24 hours prior to the due date of the assignment, including attendance in Discussion.

5. **Lecture: The history of ecological thought Part 2**. Next assignment: Read "How Dogs Read Our Moods", "Human-like social skills in dogs?", and "Humanity's Dual Response to Dogs and Wolves", "Dogs 8000 year old art"
6. **Lecture: Of wolves, dogs, and people.** Study guide 1 due . Next assignment: Read Chapters 6-7 in Kricher for Exam 1.
7. No class meeting. Extended student hours to prepare for exam.
8. **October 2nd, Exam 1** (regular classroom and class time)

Section 2: Human impairment of ecosystems and biodiversity

Next assignment: Read Ch. 12 in Kricher and Definitions of predator-prey behavioral ecology
9. **Lecture: Top predators 1–Ecosystem structure and function.** Next assignment: Read "Estes et al. 2011" and "Logistic population growth"
10. **Lecture: Top predators 2: Endangerment and recovery Part A.**
11. **Lecture: Top predators 2: Endangerment and recovery Part B.** Next assignment: Read "Kremen 2002", TBD and "Breakfast of biodiversity"
12. L**ecture: Agroecology 1 – Plants and People.** Next assignment: Read "Dirt"
13. L**ecture: Agroecology 2 – Soil ecology.** Next assignment TBA
14. **Lecture: Agrobiodiversity** (guest Will Shattuck, PhD candidate in Dept. of Geography). Next assignment: Read Ch. 13 in Kricher, watch Cane Toads video
15. L**ecture: Non-native species.** Next assignment Read Ch. 11 in Kricher and listen to mp3 files, and several short pdf on climate change
16. **Lecture: Climate change 1–heat, light, water.** Study guide 2 due.
17. No class meeting. Extended student hours to prepare for exam.
18. **November 6th, Exam 2** (regular classroom and class time)

Section 3: Repairing the damage done by previous generations of people

Next assignment: Read Walther et al. 2002 and several short pdfs on climate change
19. **November 8th is an optional class session:** Where to next with ecology and environmental studies?
20. **Lecture: Climate change 2 – effects on organisms.** Next assignment: Read "The Revival of the Public Trust...", Treves et al. 2018, and several short pdfs on atmospheric trust litigation
21. **Lecture: Climate change 3: combating climate change**

November 20th Optional class meeting for guest lecture. Next assignment: Watch three videos: "If a tree Falls", and "Bears of Sequoia", and "Radioactive_Wolves" [Make sure to click on the 'CC' button at the bottom-right corner of the video] before next class. Read "Predators and the public trust"

November 22nd No class meeting. Thanksgiving break.
22. **Lecture: The U.S. Public Trust Doctrine** Next assignment: Read "Only 30: Portrait of the ESA..."
23. **Lecture: The U.S. Endangered Species Act and wolf recovery.** Next assignment: several short pdfs on governmental actions
24. **Lecture: Wolves and other big predators are a litmus test for our trustees.** Study guide 3 due.
25. No class meeting. Extended student hours to prepare for exam.
26. **December 11th, Exam 3** (regular classroom and class time)

NO FINAL

Students whose religious observances conflict with a mandatory assignment are asked to inform their TA as soon as possible and no later than 24 hours prior to the due date of the assignment, including attendance in Discussion.

POLICIES

Fair Credit

Assignments with evidence of plagiarism – or its relative 'not giving fair credit to other authors or creators of content' – will receive zero credit regardless of whether the work is correct. Two incidents will result in communication of the case to the Dean of Student Life.

Plagiarism is the copying of someone else's work--whether it is your classmate or another author, whether it is written or spoken. Not giving fair credit to others includes misattributing ideas to them or failing to give them credit for their ideas or communications. These forms of academic misconduct can be avoided by combining ALL of the following steps in your oral or written work:

- Integrate information from multiple sources when you write or speak and use your own words so the output is original and does not directly copy any other person's work.
- Credit the authors of work you used so that your reader can find the exact same source in the place you report you found it.
- Cite sources appropriately in two places as follows: (a) include both a shortened in-text citation (e.g., Treves 2018 or Treves et al. 2018) – 'et al.' is short for 'et altera' and means 'and others'; (b) the in-text citation must be exactly repeated in the bibliography or literature cited section with its creator, title (if any), date, and location, e.g., "A. Trev*es et al. (20*18) Intergenerational equity can help to prevent climate change and extinction. Nature Ecology & Evolution 2, 204-207." or for websites, e.g., "Carnivore Coexistence Lab. 2018. Publications. http://faculty.nelson.wisc.edu/treves/publications.php accessed 21 April 2018"; (c) for sources that are missing any of the above **required** elements of appropriate citation, You must explain in writing what was missing and precisely where the reader will find the exact same source.
- If you wish to use the exact wording of another author, place the text in quotations in your text and provide the exact page number or location (e.g., time in an audio recording). Do not modify the original text. If you need to connect different passages use '…' but do not cite out of context (the surrounding words) or distort the meaning by excerpting sections. For example, "The global crises of climate change and extinction imperil all life on Earth, including present and future human generations. … 144 nations emit the majority of atmospheric CO2 and host most of the world's biodiversity by several measures." (p. 204, Treves et al. 2018).
- Always try to find the primary reference to a statement rather than someone else's repetition of it. This may not always be possible for obscure sources. Wikipedia, Google, and the like are NOT primary sources, although they may lead you to appropriate primary sources, which should be read in the original.
- Even when an assignment demands that you copy text, you must cite your source carefully.

Rules, Rights, Responsibilities: Please refer to UW-Madison's Guide regarding students' Rules, Rights and Responsibilities: http://guide.wisc.edu/undergraduate/#rulesrightsandresponsibilitiestext

Netiquette [1]**:**

- Students are responsible for good behavior online, just as they are in a traditional classroom. Always use a computer in a way that shows consideration and respect. Do not use threatening or pornographic language. Never say anything via email that you wouldn't mind seeing on the school

[1] * Sources: Shirley Waterhouse and Rodney O. Rogers (3004) "The Importance of Policies in E-Learning Instruction" EDUCAUSE Quarterly 3: 28-39 and Florida virtual School Handbook 2015-2016 https://www.flvs.net/docs/default-source/full-time/resources/flvsft_highschool_handbook.pdf?status=

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bulletin board or in the local newspaper. Your UW email address is not private. Email with your online classmates should be course-related. It is prohibited to send unsolicited non-academic email to your online classmates.

- We take integrity and authenticity of student work very seriously. Because it is easy to copy from the internet, it may be tempting. See the policy on fair credit to others above.
- Security is a high priority, especially when the system involves many users. If you identify a security problem in the school's computers, network, or Internet connection, notify a system administrator.
- Beware of emails from anyone you don't know, asking for personal information, attempting to arrange meetings, or engaging in personal contact. Alert your instructor or other UW employee of any message you receive that is threatening or aimed at you with offensive content.
- Protect your password. Keep it secret from anyone except your close family.
- This document sets forth guidelines for e-mail communication with the course instructor. Excessive e-mails make unreasonable time demands on both sender and recipient. Please ensure you have a reasonable need before you write. Thanks. Your instructor will answer e-mails about (a) understanding course content, (b) requests for feedback about graded assignments, (c) private issues that affect learning or participation in the course. Your instructor will not answer e-mails that pose questions answered in the syllabus other than to direct you to the syllabus, (b) lacks a subject line pertinent to the course or to prior discussions, (C) raises an inappropriate subject.
- Course materials, including student work and unpublished research, should not be shared or distributed without written permission.
- Your instructor will answer e-mail received within 24 hours unless they have notified the class of an interruption of service.
- We assume no responsibility for any phone charges, line costs, or usage fees for connectivity to the Internet.
- It is illegal to create harmful computer viruses. We will cooperate fully with local, state, or federal officials in any investigation related to any illegal activities conducted through Internet access. In the event there is a claim that you have violated this policy, you will be provided with notice of the suspected violation and have an opportunity to present an explanation. Any violations by the student or parent/guardian may result in removal from course(s), as well as other disciplinary or legal action.

UNIVERSITY POLICIES

Academic Integrity

By enrolling in this course, each student assumes the responsibilities of an active participant in UW-Madison's community of scholars in which everyone's academic work and behavior are held to the highest academic integrity standards. Academic misconduct compromises the integrity of the university. Cheating, fabrication, plagiarism, collaboration on individual assignments unless authorized by your instructor(s), and helping others commit these acts are examples of academic misconduct, which can result in disciplinary action. This includes but is not limited to failure on the assignment/course, disciplinary probation, or suspension. Substantial or repeated cases of misconduct will be forwarded to the Office of Student Conduct & Community Standards for additional review. For more information, refer to studentconduct.wiscweb.wisc.edu/academic-integrity/

Accommodation for Students with Disabilities

Students whose religious observances conflict with a mandatory assignment are asked to inform their TA as soon as possible and no later than 24 hours prior to the due date of the assignment, including attendance in Discussion.

The University of Wisconsin-Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and UW-Madison policy (Faculty Document 1071) require that students with disabilities be reasonably accommodated in instruction and campus life. Reasonable accommodations for students with disabilities is a shared faculty and student responsibility.

Students are expected to inform faculty [me] of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. Faculty [I], will work either directly with the student [you] or in coordination with the McBurney Center to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student's educational record, is confidential and protected under FERPA.

http://mcburney.wisc.edu/facstaffother/faculty/syllabus.php

A Safe and Welcoming Classroom

Diversity is a source of strength, creativity, and innovation for UW-Madison. We value the contributions of each person and respect the profound ways their identity, culture, background, experience, status, abilities, and opinion enrich the university community. We commit ourselves to the pursuit of excellence in teaching, research, outreach, and diversity as inextricably linked goals. Safe and welcoming classrooms "encourage that continual and fearless sifting and winnowing by which alone the truth can be found" by fostering an environment of free speech consistent with US law and safe from threats or violence.

The University of Wisconsin-Madison fulfills its public mission by creating a welcoming and inclusive community for people from every background – people who as students, faculty, and staff serve Wisconsin and the world.

Mental Health Resources

School is a context where mental health struggles can be exacerbated. If you ever find yourself struggling, please do not hesitate to ask for help. The University and larger Madison community offer mental health resources to support a range of psychological issues in a confidential and safe environment: Confidential Counseling Services: -University Health Service (UHS) - For 24/7 confidential consultation: 608-265-5600 (option 9)

FERPA

FERPA – the Family Educational Rights and Privacy Act of 1974, as amended – is a federal law that governs the privacy of student educational records, access to those records, and disclosure of information from them. For more information, please refer to Student Privacy Rights (FERPA).

Copyright

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Technology Requirements

Recommended systems and browsers: https://community.canvaslms.com/docs/DOC-10721

- Firefox: http://support.mozilla.org/en-US/kb/update-firefox-latest-version
- Chrome: http://support.google.com/chrome/bin/answer.py?hl=en&answer=95414 **(sometimes creates problems with videos)**
- Safari http://www.apple.com/safari/

System Check

To ensure your browser is properly configured, please use the following link: https://uwmad.courses.wisconsin.edu/d2l/systemCheck .

For technical support, please contact the Help Desk: https://kb.wisc.edu/helpdesk/1 .

- Firefox: http://support.mozilla.org/en-US/kb/update-firefox-latest-version
- Chrome: http://support.google.com/chrome/bin/answer.py?hl=en&answer=95414
- Internet Explorer: http://windows.microsoft.com/en-us/internet-explorer/download-ie

Network Use Policies

https://it.wisc.edu/about/office-of-the-cio/it-policies/