

Zoogeochemistry: Animal Effects on Ecosystems

ZOO4926/ZOO6927

Spring 2024

Course Information:

Academic Term: Spring 2024

Class Periods: Mon. 10:40 am – 11:30 am (Period 4), Wed. 10:40 am – 12:35 pm (Period 4-5)

Instructor:

Dr. Amanda Subalusky

asubalusky@ufl.edu

Please use Canvas to contact me for all course-related emails

Office: 518A Carr Hall

Office Hours: Mon. 11:30 am – 1:00 pm and by appointment

Phone: 352-294-6311

Course Description and Objectives:

The course aims to introduce students to the direct and indirect pathways through which animals influence ecosystem function. We will investigate animal effects through trophic pathways (animals as consumers and prey), transport pathways (animals as vectors of energy, nutrients, and propagules), and habitat modification (animal as ecosystem engineers), and we will ask how animal traits and environmental context interact to influence the functional importance of animals across space and time. We will cover the influence of animal behavior and movement patterns on these dynamics, such as the role of migration, and we will ask how these effects vary in response to human influence on ecosystems.

The learning objectives for this course include the following:

- Understand basic animal physiology and its influence on animal consumption, excretion, movement, and behavior
- Understand the metabolic theory of ecology and ecological stoichiometry and how these influence the role of animals in ecosystems
- Identify and quantify top-down and bottom-up effects of animals on ecosystem function within and across animal taxa and ecosystems
- Compare and contrast the ecosystem effects of various animal taxa across a range of environmental contexts

Course Pre-Requisites / Co-Requisites:

Prior coursework in general ecology and/or ecosystem ecology are suggested prerequisites. Please speak with the instructor if you do not have these prerequisites.

Course Format and Readings:

The course will consist of lectures, class discussions of journal articles, and in-class exercises. We will typically discuss 2-3 articles per week, and each student will be assigned to lead several journal article discussions during the semester. Readings will be drawn from the primary literature, and these materials will be made available on the course website on Canvas. Students are expected to complete the assigned readings before the class period and engage in discussion during class.

Assignments and Grading:

Sixty percent of your grade will be based on weekly assignments and class participation, and forty percent will be based on a course project. Weekly assignments will include a brief summary of papers to be discussed or a write-up of classroom exercises. Class participation will include participating in paper discussions each week and leading several discussion periods throughout the semester. The course project will entail conducting a research project on a relevant topic of your choice, incorporating data from the literature, writing a paper, presenting your research to the class, and providing peer review on your colleagues' work.

Assignment	Proportion of final grade
Exercises and paper summaries	35%
Leading discussion	15%
Participating in discussion	10%
Course project:	
Abstract and outline	5%
Final paper	20%
Presentation	10%
Peer review	5%

Grading Policy:

Percent	Grade
93.0 - 100.0	A
90.0 - 92.9	A-
87.0 - 89.9	B+
83.0 - 86.9	B
80.0 - 82.9	B-
77.0 - 79.9	C+
73.0 - 76.9	C
70.0 - 72.9	C-
67.0 - 69.9	D+
63.0 - 66.9	D
60.0 - 62.9	D-
0 - 59.9	E

More information on UF grading policy may be found at:

<http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#grades>

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see:
<http://registrar.ufl.edu/catalog0910/policies/regulationferpa.html>

Attendance Policy, Course Expectations, and Make-Up Policy:

Attendance is expected for this class. Excused absences must be consistent with university policies in the Graduate Catalog (<http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance>) and require appropriate documentation. Additional information can be found here:
<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

All students are expected to contribute to an equitable and inclusive class environment, in which everyone feels comfortable asking questions and expressing opinions. All students are expected to read the assigned readings, complete the assignments, and come to class prepared to discuss them. Specific expectations and requirements will differ between undergraduate and graduate students for the level of synthesis in summaries and discussions of the literature and in the course project.

You are expected to submit all homework assignments. If you know ahead of time that you will miss class, please plan to submit your homework before the missed class. If this is not possible or you miss class for an unexpected reason, please contact the instructor to discuss a timeline for submission.

Students Requiring Accommodations:

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. Please discuss your accommodation letter and access needs with the instructor as early as possible in the semester.

Course Evaluation:

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://gatorevals.aa.ufl.edu/>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://gatorevals.aa.ufl.edu/>.

University Honesty Policy:

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code." On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor in this class.

Campus Resources:

There are a number of campus resources that you are encouraged to make use of throughout the semester.

Health and Wellness

U Matter, We Care:

If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.

Counseling and Wellness Center: <http://www.counseling.ufl.edu/cwc>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or <http://www.police.ufl.edu/>.

Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu. <https://lss.at.ufl.edu/help.shtml>.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling. <https://www.crc.ufl.edu/>.

Library Support, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. <https://teachingcenter.ufl.edu/>.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. <https://writing.ufl.edu/writing-studio/>.

Student Complaints Campus:

https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf.

On-Line Students Complaints: <http://www.distance.ufl.edu/student-complaint-process>.