

BEHAVIORAL ECOLOGY (PCB5415)

Fall 2020

MW, periods 6 and 7
Synchronous, online

Instructor: Rebecca Kimball
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Objectives: To introduce graduate students and advanced undergraduates to the field of behavioral ecology, introducing students to the breadth of the field. A focus will be on both key hypotheses and theories, but also thinking critically about these ideas. Students will be encouraged to think about how to approach behavioral questions in different ways.

Textbook: Evolutionary Behavioral Ecology (Westneat and Fox 2010). An eBook of this is available through the UF Libraries.

Grading and expectations:

- 1) Participation in discussions, lectures, etc. (this requires reading assigned material IN ADVANCE so you are prepared to participate). (25% of class grade)
- 2) Leading discussions. Discussions will generally be led by two students (or one student for the first part of class, one for the second). Discussion leaders will find papers for the class to read (the discussion leaders may want to read material in addition to this as well), organize questions, and run the discussion. The discussion should consider all angles, and may be set up as a debate between two alternative view points. Discussion leaders can work together or each take a component of the material (e.g., each take a side). Plan to lead 2 discussions each. (10% of class grade)
- 3) For five discussions (your choice, and you can do more than five is the expectation for full credit), students will be expected to submit two questions or comments on each paper in advance of the discussion. These should address things such things as whether the authors adequately considered alternative hypotheses, was the study design appropriate, were the interpretations reasonable, was there anything puzzling about their results, etc. (5% of class grade)

These need to be **emailed to me and the designated discussion leader(s) by 10pm the night before discussion.**

- 4) Proposals. You will submit two small "grant proposals" about behavior (5-10 pages, double spaced, excluding figures or literature cited). These should include some background to set up the importance of the hypothesis, careful consideration of alternative hypotheses, methods to test among hypotheses, predictions (and what result would support which hypothesis). You must need to use a different approach in each proposal (e.g., one might incorporate physiology while the other might utilize experimental manipulations). (Each is 15% of class grade)

5) Final assignment. Write a review-style paper that provides a summary of an area of behavioral ecology you are interested in. This should focus on a question in behavioral ecology, not just a taxonomic group. The article should provide a balanced discussion of the ideas, including unanswered questions, conflicting data, and/or areas of future research. This assignment will be longer than the proposals (10-20 pages, double spaced, excluding figures, tables and literature cited). You will submit an initial version, and then you will revise this based on comments received through peer review and submit a final version. (25% of class grade)

6) Peer review of the final assignment. Each student will critically read and write an approximately two page review of another student's final assignment (I will assign these largely randomly). This will be turned in by the paper's author with the final paper. (5% of class grade)

Topics:

In general, Monday will be a student-led discussion of primary literature on a specific topic. Wednesday will generally be the introduction to the next topic. The specific topics and schedule will depend upon interest of the class (see a list below for a list of topics likely to be covered). You will receive an email with questions to solicit your interest in various topics, provide information on your background, etc. Once I have received this, I will come up with a final class schedule, and you can sign up for discussions to lead.

- Natural selection and behavior
- Evolution of animal signals (including deception)
- Sensory ecology and behavior
- Optimality and decision making (foraging, habitat selection)
- Learning, social learning
- Evolutionary arms races
- Sexual selection and mating systems
- Conflict and cooperation in social groups
- Selfishness, altruism, kin selection
- Reproductive skew
- Alternative breeding strategies
- Conservation and behavior
- Phylogenetic analyses and behavior
- Modeling and behavior

Other information:

Recording of class: For some classes (not discussions), if someone cannot attend due to illness or another conflict, our class sessions may be audio-visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voice recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button

activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials by students or any other party is prohibited.

Academic Honesty: All students registered at the University of Florida have agreed to comply with the following statement:

“I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University.”

In addition, on all work submitted for credit the following pledge is either required or implied:

“On my honor I have neither given nor received unauthorized aid in doing this assignment.”

More details can be found in the UF Honor Code at <https://sccr.dso.ufl.edu/process/student-honor-code/>. Academic dishonesty or other Honor Code violations will not be tolerated, and each incident will result in – at minimum – the loss of a full letter grade in the course, a zero on the assignment in question, and additional sanctions as appropriate, up to and including a failing grade in the class. In this course, academic dishonesty includes (but is not limited to) plagiarism on written assignments.

If you witness any instances of academic dishonesty in this class, please notify the instructor or contact the Student Honor Court (392-1631) or Cheating Hotline (392-6999). For additional information on Academic Honesty, please refer to the University of Florida Academic Honesty Guidelines at:

<http://www.dso.ufl.edu/judicial/procedures/academicguide.html>.

Accommodations for Students with Disabilities: Students with disabilities who require accommodations can seek assistance at the Dean of Students Office of Disability Resources, in Reid Hall (phone: 352-392-8565). The Dean of Students Office of Disability Resources will work with the instructor to accommodate the student. Please see the University of Florida Disability Resources website for more information at: <http://www.disability.ufl.edu>.

U Matter, We Care: Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.