BEHAVIORAL ECOLOGY (PCB5415)
Fall 2015

MW, periods 3 and 4
521 Carr Hall

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Objectives: To introduce students to the field of behavioral ecology, covering a diversity of topics within that subdiscipline. A focus will be on both the key hypotheses and theories, but also thinking critically about these ideas.

Textbook: Evolutionary Behavioral Ecology (Westneat and Fox 2010)

Grading and expectations:

1) Participation in discussions, lectures, etc. (this requires reading assigned material IN ADVANCE). (20% 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 each discussion, students will be expected to submit two questions or comments on the papers for discussion, including 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. (10% of class grade)

These need to be **emailed to me and the designated discussion leader by noon on Sunday** before discussion.

4) Proposals. You will submit two small proposals testing a question in 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). (Each is 15% of class grade)

Proposal 1: Due October 7
Proposal 2: Due October 28

5) Final assignment. You have the option to do one of two different assignments. 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)

Option 1: 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.

Option 2: Write a longer proposal. This will include greater background and exploration of hypotheses than in the smaller proposals, but still carefully laying out alternative hypotheses and predictions.

Initial submission: Due November 25
Final submission: Due December 9

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)

Receive assignment for review: November 25
Submit review: December 2

** You should write TWO proposals on the same hypotheses (or very similar ones), but using very different methods to answer them (e.g., experimental in proposal 1, meta-analysis in proposal 2). If you choose the review paper, then both proposals need to be on the same topic; if you choose to do a final proposal, then any two of three need to be on the same topic.

Other information:

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.”

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 should first seek assistance at the Dean of Students Office of Disability Resources, in Peabody 202 (phone: 352-392-1261). 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.dso.ufl.edu/drp/services/.

Counseling Center: Many students experience test anxiety and other stress related problems. “A Self Help Guide for Students” is available through the Counseling Center (301 Peabody Hall, 392-1575) and at their website: http://www.counsel.ufl.edu/ .

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. 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.

Possible Topics:

We will have some classes that look at methods for addressing behavioral questions at the beginning of the semester (this is not exhaustive, and other methods or specific approaches within these categories will come up through some of the other topics we discuss):
     Genetics
     Phylogenetics and meta-analyses
     Modeling
     Hormones/Neurophysiology (depending on interest)

Optimality
Decision making
Information use
Social learning
Sensory systems/sensory ecology
Foraging theory
Risk/predation
Life history
Interacting phenotypes
Aggression and other contests

Signaling
Group dynamics
Kin selection
Selfishness, altruism, and cooperation
Complex social systems
Sexual selection
Sperm competition
Mate choice
Sexual conflict
Alternative mating strategies
Parental care modes
Recognition systems
Behavioral syndromes
Conservation and behavior

Other topics – feel free to indicate specific topics you would like to cover (even if they might be part of another topic, if you would like more focus in an area, let me know)?