Biology 354/2: Behavioural Ecology

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Office Hours: by appointment.

Course Overview:
Behavioural ecology examines the ways in which animals interact with their environments and the survival value of behavioural patterns. All aspects of an individual’s environment, including conspecifics, heterospecific competitors and predators, biotic and abiotic components of the local habitat, excerpt strong selection pressures on an individual’s behavioural phenotype. This course will focus on the proximate (mechanisms) and ultimate (functional or adaptive value) causation leading to these behavioural phenotypes. Topics will include: intraspecific competition, predator-prey dynamics, foraging, sexual selection and mating systems, habitat selection, communication and the evolution of sociality.

The course will consist of lecture and tutorial components. Lectures are designed to give students an introduction to the broad concepts and models, which comprise modern Behavioural Ecology. Tutorials will give students the opportunity to examine, through directed discussions and videos, current research topics and controversies in greater detail. It is imperative that students come prepared to both lectures and tutorials in order to actively participate in discussions. Please ensure that you have done all readings before coming to class!

Textbooks:
The recommended textbook for this class is “An Introduction to Behavioural Ecology, 4th Ed” by Davies et al. In addition, readings will be posted on the course website. Please make sure you check the web page often. I will also announce any posted readings in class. In addition to the readings I post, there is a wealth of Animal Behaviour textbooks in the library. I suggest that you review any of these, focusing on topics related to our class discussions.

Grades:
Students are expected to submit all written assignments on time. I will assess a 10% per day late penalty for any assignment submitted after the deadline, NO EXCEPTIONS. Failure to submit any written assignment will result in the automatic loss of a full letter grade. If you have a conflict with any assignment or exam date, please see me as early as possible. There will be NO MAKEUP exams or assignments. If you miss the midterm exam for valid and verified reasons, I will pro-rate the final exam accordingly.

ATTENDANCE AT TUTORIALS IS MANDATORY. NO TUTORIAL ASSIGNMENT WILL BE ACCEPTED UNLESS YOU ARE IN ATTENDANCE.
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Lecture:
Midterm exam  20%  20 October 2016
Final exam  40% TBA

Tutorial:
Ethogram  5%  23 Sept 2016
Research proposal  20%  2 December 2016
Paper summaries  15% (due each tutorial)

NOTE:
Tutorials will be every two weeks, starting the 2nd week of term.

Dates for tutorials are:
14-15 Sept
28-29 Sept
11-12 Oct
26-27 Oct
9-10 Nov
23-24 Nov

Lecture Topics: This is a preliminary list of topics and readings, up-to-date reading lists will be posted on the course web page. Tutorial readings will also be posted on this site. CHECK IT OFTEN!

PLEASE NOTE, THIS IS A TENTATIVE LIST AND SUBJECT TO REVISI-ION AS WE PROGRESS THROUGH THE TERM.
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Week of:
- 5 September  
  Approaches to the study of behaviour  
  Natural selection and adaptive value of behaviour  
  Krebs and Davies, 1, 2 & 3

- 12 September  
  Behavioural ontogeny I: mechanisms  
  Readings

- 19 September  
  Behavioural ontogeny II: learning  
  Readings

- 26 September  
  Behavioural plasticity  
  Krebs & Davies, 4  
  Readings

- 3 October  
  Predator-prey interactions I  
  Krebs & Davies 4  
  Readings

- 10 October  
  Predator-prey interactions II  
  Readings

- 17 October  
  Foraging and competition for resources  
  Krebs & Davies, 5 - 6  
  Readings

- 24 October  
  Trophic interactions  
  Readings

- 31 October  
  Habitat choice  
  Readings

- 7 November  
  Reproductive systems and parental investment  
  Krebs & Davies 8 - 10

- 14 November  
  Sexual selection and mate choice  
  Krebs & Davies, 7 - 10  
  Readings

- 21 November  
  Social systems and evolution of sociality  
  Krebs & Davies, 11 - 13

- 28 November  
  Communication and signalling  
  Krebs & Davies, 14  
  Readings
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This could be material copied word for word from books, journals, internet sites, professor's course notes, etc. It could be material that is paraphrased but closely resembles the original source. It could be the work of a fellow student, for example, an answer on a quiz, data for a lab report, a paper or assignment completed by another student. It might be a paper purchased through one of the many available sources. Plagiarism does not refer to words alone - it can also refer to copying images, graphs, tables, and ideas. "Presentation" is not limited to written work. It also includes oral presentations, computer assignments and artistic works. Finally, if you translate the work of another person into French or English and do not cite the source, this is also plagiarism.

In Simple Words:

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