

## BIOL 359 - Animal Behaviour

### Instructor

Dr. G. A. Lozano  
Office: SCI 157  
Phone: 807-9557  
email: george.lozano@ubc.ca

### Teaching Assistants(s)

### Course Description

*The Official Version:* An introduction to the ethological approach to the study of animal behaviour. Emphasis is placed on social behaviour. Physiological mechanism underlying behaviour is considered briefly. The laboratory will provide students an opportunity to work with a variety of animals, experimenting with the principles established in the lecture. OUC equivalent: BIOL 355. Credits: 3 Pre-reqs: All of [BIOL 203](#), [BIOL 204](#).

*My 2 ¢.-* I have been studying behaviour for 20 years and I am not really sure what the "ethological approach" is, nor do I know why we must specify that it is "animal" behaviour (plants do not "behave", do they?, and although microbes do, they are not really meant to be excluded from such a course, are they?). Anyway, in this course I will do what I can to share what I know about behaviour. My expertise, such as it is, comes from an evolutionary and ecological perspective (as opposed to a psychological, physiological or neurological one, for instance), so that is what I will emphasise in this course.

*My philosophy.-* A university course should be a **joyful and fruitful yet challenging** exchange of ideas. Within the constraints of the system I will do everything I can to make it so, and I hope you will do likewise. It will require a high level of diligence, hopefully competence and eventually achievement. This is a third year course, so the ability to memorize vast quantities of information will only get you half way there. Whenever possible I will emphasize comprehending concepts, not memorizing facts. You must know the facts and understand the concepts such that you are able to recognize them in different situations, and apply them in new and unexpected ways. You will be tested on your ability to extrapolate, integrate, estimate, conceptualize and hypothesize.

### Schedule:

Lectures	Tue Thu	10:00 11:20	SCI 219
Laboratory 1	Wed	12:30 15:20	SCI 142
Laboratory 2	Thu	14:30 17:20	SCI 142
Office Hour	Thu	11:30-12:30	SCI 157

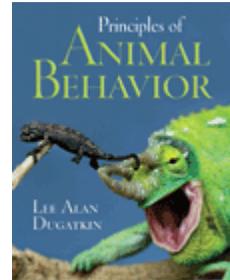
Consider lectures to be a scheduled, moderated, conversation between me and you (singular you), during which I will be the moderator and I will be doing most of the talking (but not ALL, please participate). Disruptive behaviour (repeated tardiness, cells phones, noise, conversations that do not include me, etc.) will not be tolerated. Mentioning this to members from this fine institution is completely unnecessary, right?

## Resources

### Textbook

[Dugatkin](#), L. A. 2003. [Principles of Animal Behavior](#). W. W. Norton & Company. 596 pages. ISBN 0-393-97659-9

Available at the bookstore, maybe it is cheaper across the border or in cyberspace.



### **Other Interesting Books.**

Brown, L. and Downhower, J. F. 1988. Analyses in behavioral ecology: a lab manual for lab and field. Sinauer Associates Inc. Some of the lab exercises will come from here. I could have used it as the lab text if we had all the animals and equipment required (maybe next time).

Darwin, C. 1859. The Origin of Species by Means of Natural Selection ([electronic version](#)). The greatest idea of all time! Detailed and exhaustive work, first documenting the fact of evolution and then proposing a mechanism. Yes, evolution is a FACT, natural selection is the theory, the only one we have, explaining this fact.

Dawkins, R.. 1978. The selfish gene. Oxford University Press, NY. Presents the argument that the gene, not the individual, should be considered as the unit of selection.

Lehner, P. N. 1996. Handbook of ethological methods, 2<sup>nd</sup> ed. Cambridge University Press

Pinker, S. 1997. How the mind works. New York: W. W. Norton. Another truly gifted writer. Chapters 6 and 7 might be most relevant to this course, but the entire book is worth reading.

Pinker, S. 2002. The blank slate: the modern denial of human nature. Penguin Books. For those interested in an intelligent counter-argument on the nature vs. nurture debate. Chapters 16-19 might be relevant to this course, the rest are just good reading.

Ridley M. 1996. The origin of virtue. Viking Penguin. A different Ridley than the textbook's, but also a gifted writer. Here he examines human behaviour from an evolutionary perspective.

Ridley, M. 2000. Genome. New York: Perennial. Great reading. It makes genetics seem almost exciting, and partially deals with the effects of genes on behaviour.

... and many other paper and books, as they might come up during our discussions.

## Interesting web sites

[Animal Behavior Society](#).- ABS is the North American version of ASAB - together they publish the journal "Animal Behaviour".

[Association for the Study of Animal Behaviour](#).- The equivalent to ABS across the pond, actually older than the society here, I think.

[International Society for Behavioral Ecology](#).- The difference a "behaviourist" and a "behavioural ecologist" is nebulous, but I suppose the latter examines behaviour more along the lines of ecology and evolution, rather than psychology or neurology. A while back a group of behaviourists felt strongly enough about it to create their own society, with their own journal: "[Behavioral Ecology](#)" (partly because the premier journal on behavioural ecology at the time, BES, a for-profit venture owned by a publishing house)

[Behavioural Ecology and Sociobiology](#).- (used to be) the premier journal on behavioural ecology until ISBE came along.

[UBC library](#).- Your second, if not first, home. I assume you know how to use it and are on a first-name basis with all the nice librarians.

[Advances in the Study of Behaviour](#).- A yearly, invited journal/book highlighting currently exciting topics in the field.

[George A. Lozano](#).- Personal web site, which may contain potentially useful information about your instructor (research, background, philosophy) and about your course (news, FAQs, deadlines, lectures, handouts, etc.).

## Grading and Exams

Exams will cover all previously covered material, not just the material covered since the previous exam, or the last month, or the last week. Except as dictated by university or departmental polices, there shall be no make-up exams; after all this is biology, not cosmetology.

Quiz	15 (week of Oct 9, during lab time)
Test	20 (week of Nov 13, during lab time)
Exam	35 (time and place determined by the university)
Group project	20 (due on the last day of classes)
Lab Demons./exerc.	7 (due one week after the respective lab)
Tardiness	3 (3 strike rule, after California)

[Academic Honesty](#).- This is a course on behaviour, not ethics, so I shall not pontificate, but I will urge to be aware of the relevant regulations and the consequences of breaking them. Calendar, Chapter 5, part 3 (academic misconduct).