



BIOLOGY 345 (10410)
ANIMAL BEHAVIOUR (Sept 2023)

Instructor: Dr. T. E. Reimchen,
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Lectures: Mon, Thurs 1130-1250

Lab Coordinator: Dr. Rossi M. Marx
zoology@uvic.ca

General outline of lecture topics

Historical study of animal behaviour

Behavioural lateralization –left vs right biases in animal behaviour

Nervous systems among animal phyla: anatomy, receptors, neurotransmitters

Parsing behaviour: genetic, epigenetic, hormonal, environmental

Communication, sensory modes and sensory exploitation

Defenses against predators

Optimal foraging, zoopharmacognosy

Habitat choice and territoriality –where and why?

Evolution of sex and mate choice –who and why?

Monogamy/polygyny/polyandry – how often and why?

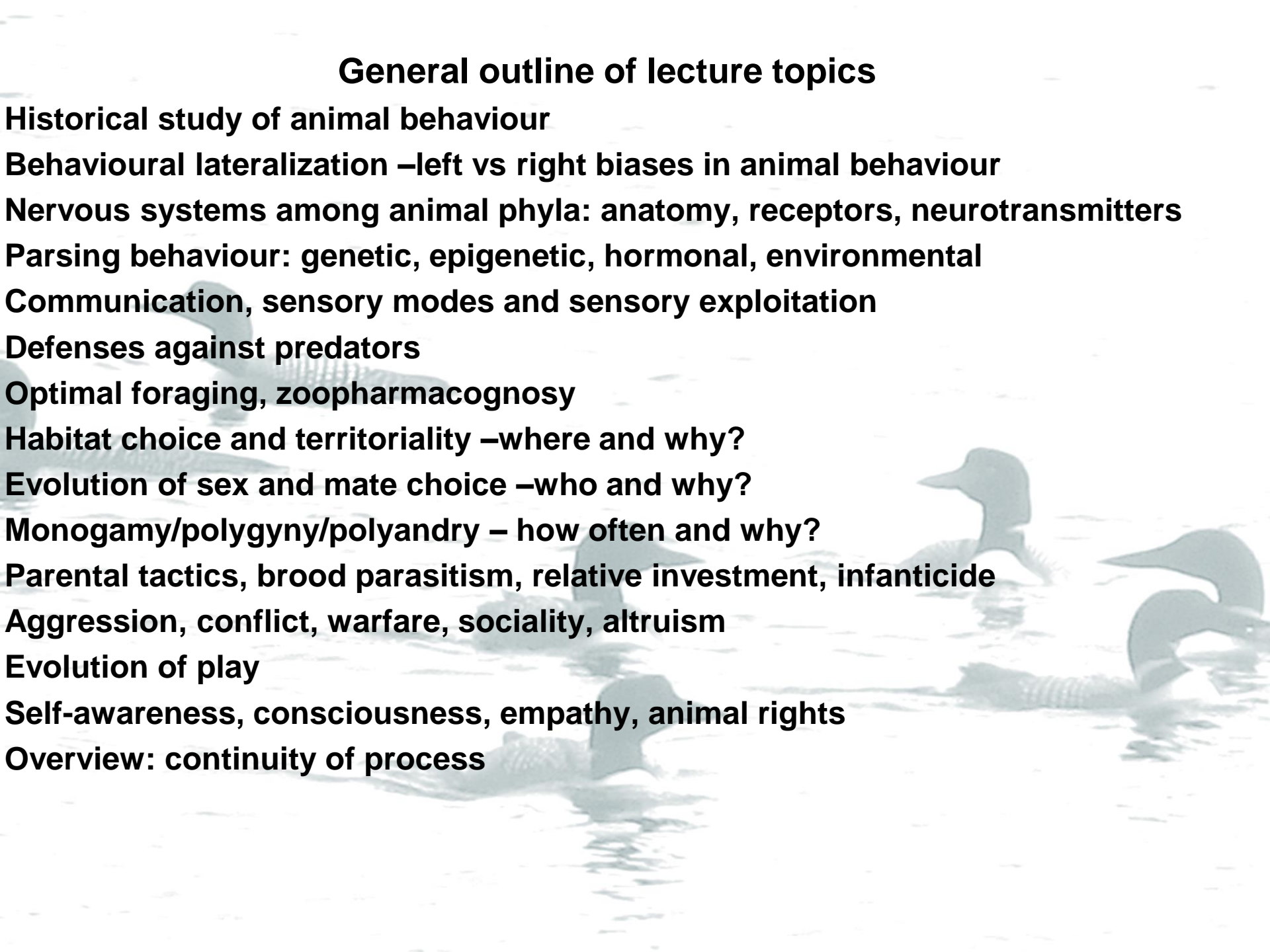
Parental tactics, brood parasitism, relative investment, infanticide

Aggression, conflict, warfare, sociality, altruism

Evolution of play

Self-awareness, consciousness, empathy, animal rights

Overview: continuity of process

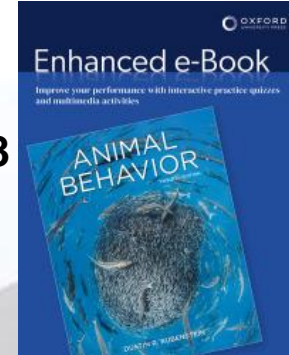


Course Text: suggested but not essential:

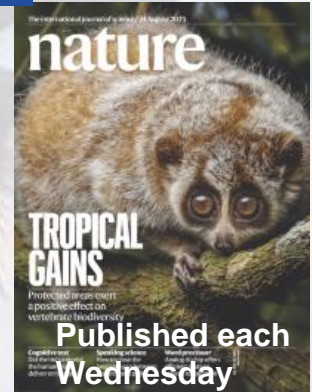
Animal Behavior (12th edition-2023)

- Author DR Rubenstein Bookstore E-Book ~\$78

-alternate text: Animal Behaviour- J. Alcock, any edition



- **Some thought-provoking reading:**
- P. Singer 1975-2015 (first to last edition): Animal Liberation
- B. Heinrich 1999: 'Mind of the Raven'
- D. Griffin 2001: 'Animal Minds: beyond cognition to consciousness'
- M. Bekoff, Jessica Pierce 2009: 'Wild Justice: The Moral Lives of Animals'
- F. deWaal, 2009: 'The Age of Empathy'
- 2016: 'Are we smart enough to know.....'
- J. Rachels 1983: 'Created from Animals'
- T. Regan 1983: 'The Case for Animal Rights'
- 2004: 'Empty Cages''
- Excellent documentaries
 - David Attenborough- The Life of Birds, The Life of Mammals,
 - Life in the Undergrowth, Planet Earth, Life in Cold Blood,
 - Blue Planet II, Life, The Hunt, The Cove,



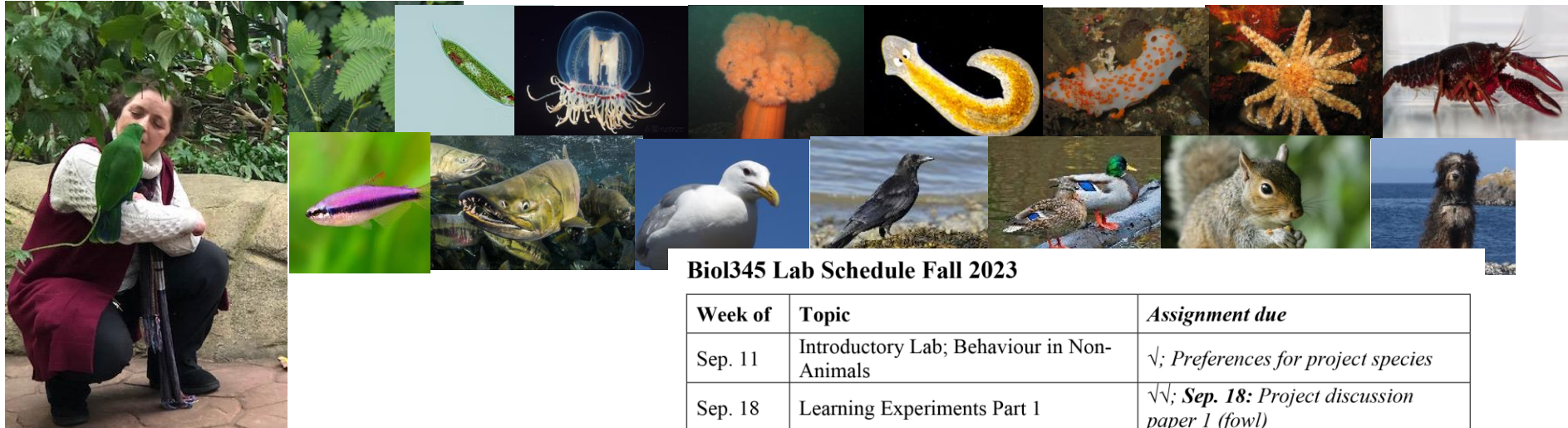
Lecture Evaluation

A: Mid-term quiz : a) Oct 16 (20%) - composed of multiple choice and short answer questions (80 minutes duration). Unauthorized absence from the quiz will receive no marks.

B: Final exam(TBA) (35%) - combination of short answers and essay.

Laboratory

Simple and complex behaviours across a diversity of taxonomic groups including protists, jellies, sea anemones, flatworms, earthworms, bivalves, nudibranchs, crabs, crickets, crayfish, sea cucumbers, urchins and tetras. Students will undertake a field project with an option of studying either crows, ducks, gulls, squirrels or dogs. Students are encouraged to visit any salmon spawning stream during October or November to watch spawning activity (eg. Goldstream near Victoria, Ayum Ck near Sooke).



Biol345 Lab Schedule Fall 2023

Week of	Topic	Assignment due
Sep. 11	Introductory Lab; Behaviour in Non-Animals	√; <i>Preferences for project species</i>
Sep. 18	Learning Experiments Part 1	√√; Sep. 18: <i>Project discussion paper 1 (fowl)</i>
Sep. 25	Learning Experiments Part 2	√√; Sep. 25: <i>Project discussion paper 2 (squirrels)</i>
Oct. 02	Writing Workshop	√; Oct. 02: <i>Project discussion paper 3 (dogs)</i>
Oct. 09	Project Work	Oct. 10: <i>Tutorial 1</i>
Oct. 16	Stimulus – Response Behaviours in Cnidarians	√√; Oct. 16: <i>Project interim results</i>
Oct. 23	Predator - Prey Interactions	√√
Oct. 30	Agonistic Behaviour in Crayfish	√√
Nov. 06	Statistics and Presentation Workshops	Nov. 06: <i>Tutorial 2</i>
Nov. 13	Reading Break – No Labs	
Nov. 20	Preference Behaviours in Diamond Tetras	√
Nov. 27	Project Presentations	<i>Powerpoint presentation;</i> Nov. 27: <i>Project report</i>
TBA	Optional Field Trip: Goldstream Park for Salmon Migration	

Distribution of Marks

Lab Exercises and Pop Quizzes	16%
Tutorials (2@2%)	4%
Project	25%
Paper discussions (3@1%)	3%
Interim results	2%
Presentation	5%
Report	15%
Total	<hr/> 45%

Important Dates and Issues

Sept 06: First day of classes

Sept 19: last day for 100% reduction of tuition fees for standard first term and full year courses. 50% of tuition fees will be assessed for courses dropped after this date

Sept 22: Last day for adding courses that begin in the first term

Sept 30: Last day for paying first term fees without penalty

Oct 10: Last day for 50% reduction of tuition fees. 100% of tuition fees will be assessed for courses dropped after this date

Oct 16: Lecture midterm exam

Oct 31: Last day for withdrawing from first term courses without penalty of failure

Nov 13-15 Reading break

Dec 04: Last lecture

Dec 07: Examinations begin for all faculties

There will be 5 minute break half way through each lecture devoted to a question and answer session concerning any issues from the previous or current lecture.

Pdfs of most lecture material will be posted on Brightspaces later in the day.

Students are responsible for checking their own records and registration status and should review the UVic Student Code of Conduct.

Deferred exams will be offered only for medical issues. Students receiving less than 45% on the final lecture exam receive a failing grade for the course and a supplementary exam is not permitted for those who get less than 50% in the course.

Learn lots, study and enjoy the course

Evolutionary and Ecological Studies in Reimchen's Lab



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1: Brief canoe sequence of Drizzle Lake ([video](#))

2: Underwater video of nesting male stickleback and curious Common Loons in dystrophic (red-shifted) waters ([video](#)). see [Reimchen 1989](#) and [Marques et al. 2017](#).



Lab Members



Adaptive Radiation &
Functional Morphology



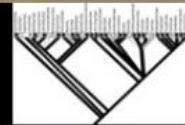
Haida Gwaii
Lake Biophysicals



Loon Research



Salmon Forest
Project



Molecular Studies



Publications



Diving photos

Supporting Agencies