ORNITHOLOGY
BIOL 458.3 – Fall 2013

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Office Hours: drop in, or call for an appointment.

Demonstrator: Ms. Elizabeth Gow
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Course Description and Learning Outcomes: Students will gain an appreciation for diversity within the class Aves by learning about the evolution, morphology and behaviour within this group. Basic concepts of evolution and ecology will be applied and reinforced in lectures, using birds as examples. Through labs and field trips, students will learn to identify the major groups of birds, worldwide and locally and to take accurate field notes. Students will practice research, writing and communication skills by studying an avian conservation issue of their choice.

Texts:
Recommended: Gill, FB Ornithology – 3rd edition. Freeman

Required: A field guide of your choice: make sure it covers western North America. Among the most popular are *The Sibley Field Guide to Birds of Western North America*, *National Geographic Field Guide to Birds of North America, Peterson Field Guide to Birds of North America, Stokes Field Guide to Birds: Western Region.*

Companion texts that might be helpful/fun/interesting:
Podulka, S., R.W. Rohrbaugh, Jr., and R. Bonney (eds). *Handbook of Bird Biology*. Cornell Lab of Ornithology
Elphick, C. et al. 2001. *The Sibley Guide to Bird Life and Behavior*. Random House, Canada
Ehrlich, R.R., D.S. Dobkin and D. Wheye. 1988. *The Birder's Handbook.* Simon & Schuster Inc.

Evaluation:

Mid-term exam	15%, on **8 Oct (lab period)**
Final exam	35%
Lab exam	20%, on **5 November**
Term paper	text 15%, due on **26 November**
Oral presentation	8%
Log book	7%, due **3 Dec**

NOTE: A late penalty of **10% per day** will apply to assignments. Students are required to complete all exams in order to receive a final grade.

Lecture Topics (MWF 8:30-9:20 am, Biology Rm. 124)
Introduction to Ornithology
Evolution
Phylogeny, speciation and geographic variation
Morphology and anatomy
Flight and feathers
Physiology
Reproduction
Behaviour

Labs (T 1:30 to 5:20 pm; BIOL 123/124)

Labs

Lab	Date	Content
1	Sept 10	- Sat. field trip on 7 Sept. in lieu of lab
2	Sept17	- morphology & evolution (bring lab coat if desired)
3	Sept24	- study skins Struthioniformes, Tinamiformes, Galliformes, Sphenisciformes
4	Oct 1	- study skins Charadriiformes, Pelecaniformes, Suliformes Ciconiiformes, Gruiformes
5	Oct 8	**MID-TERM EXAM (2 hrs)**
6	Oct 15	- study skins Anseriformes, Podicipediformes, Gaviiformes, Procellariiformes,
7	Oct 22	- study skins Falconiformes, Accipitriformes Strigiformes, Caprimulgiformes Psittaciformes, Columbiformes,
8	Oct 29	- study skins Cuculiformes, Apodiformes, Coraciformes, Piciformes, Passeriformes
9	Nov 5	**LAB EXAM**
10	Nov 12	- student presentations
11	Nov 19	- student presentations
12	Nov 26	- student presentations and/or review (papers due)

Log Book: A Record of Encounters with Birds

You are to keep a written record of encounters with birds that you find interesting. The subjects should be wild birds (no pets or birds in zoos). The intention is for you to gain experience in observing and identifying birds, and in reporting your findings accurately. To get a passing grade (3.5/7 %), you must ID at least 25 species. Higher marks will be partly based on additional species but mainly on the accuracy of your descriptions and records.

Directions on how to keep records.

1) Write in a small "field" notebook - preferably a small hardcover. Write legibly.
2) Number each encounter.
3) For each observation, include the date, time of day, general weather conditions (approximate wind speed, cloud cover, temperature, lighting, general day type, specific location, and habitat).
4) First present a species identity. This may be the only thing recorded for that particular encounter. When you encounter a species for the first time, identify it and list distinguishing features (that you actually see!) and/or draw a sketch. For example, note its size, shape, bill shape and colours. Does it have tail spots? Wing bars? Eye rings? Rump patches? Refer to field guides for helpful hints on describing and identifying birds. If there are similar-looking species, tell us how you were certain of your identification. Subsequent encounters with the same species need only to refer to it by name.
5) Record all observations that are of interest to you. They may have to do with a behaviour, an unexpected sighting of species for this time of year in Saskatoon, an unusual colour form, etc. What was the bird doing? Was it alone? Did you notice any patterns in its behaviour?
6) Literature references are NOT needed, but you may refer to something you have seen or read as a motivation for why you chose to write up this encounter.
   This is a field book and as such should look like one. The notes you make should be as you recorded them in the field and not copied out just before you hand it in.

Log book is to be handed in on the last lab day

NOTE: This is a field book; therefore, use it in the field! Do not copy notes (e.g., for the sake of neatness) into another book to hand in. Do it right the first time.

There is no maximum number of species to report.

Term Paper and Presentation

Length: 8-9 pages double-spaced and typed, not including reference list. Pages past the page limit WILL NOT be read so be organized and write concisely. Use standard margins (2.5 cm) and 11 pt Arial font or 12 pt Times font.

Date due: 26 November

The topic is **issues in avian conservation.** The objective of this exercise is to achieve a better understanding of the threats on bird populations, how humans may be involved and how we are trying to mitigate the threats.

Each student is to choose a subject (some suggested areas are listed below) and then notify the T.A. (first come, first served). Each paper and presentation should include a broad overview of the subject in the Introduction, plus a meaningful and detailed account of the phenomenon. Also include some of the ways that the problems can be alleviated. **Focus on the problem in general, not a single species.** Feel free to discuss your ideas with the instructor or demonstrator.

Important note: Primary sources (i.e., journal articles, not textbooks) must be your major source of information. In general, web sites do not contain information that is suitable for most essays because it is often shallow, lacks context, and is not peer reviewed. You MAY use google and the web for preliminary investigation of a topic and to get general topic ideas, but your paper MUST be based on peer-reviewed literature citations, typically a *minimum* of 5 are cited.

Your paper must be well organized (use subheadings to help), and contain a Literature Cited section listing only those papers to which you have actually referred.

In addition to the written paper, an oral presentation on the subject of the essay is required. Each student is to prepare a **10 min** presentation complete with overheads, or a PowerPoint presentation. There will be a 5 min period after each talk for questions and discussion. The presentations will be given during the last two or three lab periods and attendance by all students is expected.

Some examples of topics (you may think of others)

- effect of toxins on survival or reproduction (choose one of e.g., lead shot & sinkers, pesticides, industrial pollutants, radioactivity….other)
- effect of forestry operations (e.g., loss of old growth forest, fragmentation, loss of snags)
- effect of agriculture (e.g., habitat loss, fragmentation, coffee plantations)
- mortality due to commercial fishing operations
- legal or illegal commercial exploitation (e.g. pet trade, falconry, plumes for artefacts)
- predation by introduced species (e.g., cats, rats on islands)
- competition with introduced species (e.g., starlings, fire ants, loosestrife and nesting ducks)
- loss of food supply (e.g., from overfishing)

-an aspect of climate change
-window kills
-emerging diseases: west nile virus/ botulism/ Newcastle Disease

Plagiarism:

The University considers plagiarism to be academic dishonesty, as per the Student Academic Dishonesty Rules of the University of Saskatchewan Council (http://www.usask.ca/university_council/reports/09-27-99.shtml).
Plagiarism: the presentation of the work or idea of another in such a way as to give others the impression that it is the work or idea of the presenter.
There is an onus on every student to become informed as to what does or does not constitute plagiarism. Ignorance of applicable standards of ethical writing is not an acceptable excuse. The critical consideration is the impression created in the mind of the others, not the subjective intent of the student. This determination involves an objective evaluation of the manuscript. No intent to deceive is required to establish plagiarism. Adequate attribution is required. What is essential is that another person have no doubt which words or research results are the student's and which are drawn from other sources. Full explicit acknowledgement of the source of the material is required.
Examples of plagiarism are:
i. The use of material received or purchased from another person or prepared by any person other than the individual claiming to be the author. [It is not plagiarism to use work developed in the context of a group exercise (and described as such in the text) if the mode and extent of the use does not deviate from that which is specifically authorized].
ii. The verbatim use of oral or written material without adequate attribution.
iii. The paraphrasing of oral or written material of other persons without adequate attribution.
Plagiarism will not be tolerated and students must follow the University's Guidelines for Academic Honesty (http://www.usask.ca/honesty).

Deferred Examinations:

A student missing an examination must contact the instructor, in person or by phone, within 3 working days of the scheduled exam, to explain the student's absence at the exam, and to initiate discussion concerning a possible deferred exam. Otherwise, a grade of zero will be assigned for the missed exam. If you know in advance that you are going to miss an exam, it is always best to contact your instructor **prior** to the exam.