

**Marco Musiani**

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PF 3177, hours by appointment

*Winter 2016*

Thu 09:30-10:45, PF 3177

### **Introduction**

The practice of wildlife management combines the science of ecology with an understanding of human social and economic needs. It acknowledges that the root of environmental problems lies in the economy and human culture. Through a series of assigned readings, seminars and discussions, the course will examine current issues and methods in Wildlife Ecology, Conservation, and Resource Development (using wildlife species as “indicators”). The course will also explore various approaches to wildlife management practice: such as agency-based and community-based management. A limited number of guest lecturers (e.g., individuals with strong academic background who work successfully in the private and public sectors) and the instructor will expose the students to the linkages existing between the principles of wildlife management and current trends in resource development.

### **OBJECTIVES**

- To review current issues and topics in wildlife ecology
- To examine critically the application of the above principles to wildlife management and conservation.
- To develop literature search skills.
- To develop formal technical presentation skills.
- To develop technical writing skills.

### **CONTENT**

- Conservation and genetics of populations
- Conservation in practice
- Demography and extinction
- Optimal patch or habitat use
- Population Growth; derivation of growth models
- Population subdivision
- Program MARK, parameter estimates from marked animals.

- Quantifying habitat preference using resource selection functions
- Reserves in theory and practice
- Risk-sensitive habitat use
- The ecology of behaviour

## TEACHING APPROACH

Students are expected to read assigned material in advance of each seminar. In addition, students presenting seminars will search electronic journal article indexes (e.g. GoogleScholar, others) on line and other sources of information (e.g., websites, personal communications etc.). Such searches will focus significantly on peer-reviewed articles. This will allow other students too to access such readily-available, appraised publications. Presenting students will prepare and distribute a handout consisting of a brief outline of the seminar topic (e.g. one paragraph), a bibliography of current literature, and several questions to focus discussions on the topic. The presenting student will have 40 minutes to introduce the topic. Presentations will follow a typical conference protocol. The instructors will direct class discussions. Students will write a review paper on one of the topics. The instructor will review manuscripts, as would an editor of a technical journal. Therefore, two submissions are expected: (a) initial submission and (b) re-submission with all feedback incorporated, addressed and with changes explained in cover letter. Guidelines from a real academic journal will be circulated.

## LOGISTICS FOR PRESENTATIONS

**Length:** 40 minutes of presentation, followed by discussion directly related to presentation material. Short Break. Approx. 1.5-hour discussion directed by presenter and by lead instructor. Visual material will be used to aid in the discussion. Relevant papers will be searched on the web. The blackboard will be used too with the ultimate goal to address methodological problems posed by the presenter of the day.

### **Elements to be included in presentation:**

- A descriptive title, the author's name, address, and email address.
- Background Section: This should briefly summarize the background literature review (for example, the key papers already mentioned in textbooks; other papers found by the student).
- A synthesis that describes the approach a student wants to take, the take that she/he wants to give to the topic.
- In general, a student wants to set the stage for an interesting intellectual contribution. She/he also wants to describe the broad implications of a topic to environmental management matters.

No later than 2 days after each presentation, the presenter will distribute to the class a pdf of the presentation. All students will send to the group feedback on the presentation and on 'tips' to strengthen the research approach. Feedback will be provided digitally and/or through scanning notes taken during the presentation and its discussion, and/or elaborated later.

The pdf of the presentation could also serve as 'basic structure' for a research paper to be handed to the instructor. In alternative, a student could submit a thesis chapter that should demonstrate incorporation of the inputs received by the instructor and the other students. Finally, a student could pick another topic of his/her interest.

## MEANS OF EVALUATION

Presentation of discussion seminars (2 formal presentations 30%, and discussion leader's role in other classes 10%) 40%

Reading assignments in preparation for discussions 10%

Review paper 50%: (a) initial submission 30% and (b) re-submission with all feedback incorporated, addressed and with changes explained in cover letter 20%

Total 100%

No passing grades on any particular component of the course are essential if the student is to pass the course as a whole. However, the instructors will encourage students to complete satisfactorily all components. For example, students will actively participate in classes also when other students are leading the discussion.

## READINGS

A compendium of current literature will be shared. The following books are suggested supplementary readings for the course:

- Allendorf, F. W. and G. Luikart. 2007. Conservation and the Genetics of Populations. Blackwell Publishing Ltd, Malden, MA.
- Begon M, Townsend C, Harper J (2009) Ecology: From Individuals to Ecosystems. Blackwell Scientific Publications. Oxford.
- Caughley, G. & Gunn, A. (1996) Conservation Biology in Theory and Practice. Blackwell Science, Oxford and Cambridge, Mass., USA.
- Frankham R, Ballou JD and Briscoe DA (2004) A Primer of Conservation Genetics. Cambridge University Press, New York.
- Hartl, D. H. and A. J. Clark. 1997. Principles of Population Genetics, 3rd edition. Sinauer Associates, Sunderland, Massachusetts.
- Sinclair ARE, Fryxell J, Caughley G (2006) Wildlife Ecology, Conservation and Management. Blackwell Scientific Publications. Oxford.

### Notes:

1. Written work, term assignments and other course related work may only be submitted by e-mail if prior permission to do so has been obtained from the course instructor. Submissions must come from an official University of Calgary (ucalgary) email account.
2. Academic Accommodations. Students who require an accommodation in relation to their coursework or to fulfil requirements for a graduate degree, based on a protected ground other than disability, should communicate this need, preferably in writing, to their instructor or the designated contact person in EVDS, Jennifer Taillefer (jtaillef@ucalgary.ca). Students who require an accommodation unrelated to their coursework or the requirements for a graduate degree, based on a protected ground other than disability, should communicate this need, preferably in writing, to the Vice-Provost (Student Experience). For additional information on support services and accommodations for students with disabilities, visit [www.ucalgary.ca/access/](http://www.ucalgary.ca/access/)

3. Plagiarism - Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course when, in fact, it is not. Most commonly plagiarism exists when:(a) the work submitted or presented was done, in whole or in part, by an individual other than the one submitting or presenting the work (this includes having another impersonate the student or otherwise substituting the work of another for one's own in an examination or test),(b) parts of the work are taken from another source without reference to the original author,(c) the whole work (e.g., an essay) is copied from another source, and/or,(d) a student submits or presents work in one course which has also been submitted in another course(although it may be completely original with that student) without the knowledge of or prior agreement of the instructor involved. While it is recognized that scholarly work often involves reference to the ideas, data and conclusions of other scholars, intellectual honesty requires that such references be explicitly and clearly noted. Plagiarism is an extremely serious academic offence. It is recognized that clause (d) does not prevent a graduate student incorporating work previously done by him or her in a thesis. Any suspicion of plagiarism will be reported to the Dean, and dealt with as per the regulations in the University of Calgary Graduate Calendar.
4. Information regarding the Freedom of Information and Protection of Privacy Act (<http://www.ucalgary.ca/secretariat/privacy>) and how this impacts the receipt and delivery of course material
5. Emergency Evacuation/Assembly Points (<http://www.ucalgary.ca/emergencyplan/assemblypoints>)
6. Safewalk information (<http://www.ucalgary.ca/security/safewalk>)
7. Contact Info for: Student Union (<http://www.su.ucalgary.ca/page/affordability-accessibility/contact>); Graduate Student representative( <http://www.ucalgary.ca/gsa/>) and Student Ombudsman's Office (<http://www.su.ucalgary.ca/page/quality-education/academic-services/student-rights>).
8. Final grades will be reported as letter grades, with the final grade calculated according to the 4-point range. Assignment(s) will be evaluated by percentage grades, with their letter grade equivalents as shown.

Grade	Grade Point Value	4-Point Range	Percent	Description
A+	4.00	4.00	95-100	Outstanding - evaluated by instructor
A	4.00	3.85-4.00	90-94.99	Excellent - superior performance showing comprehensive understanding of the subject matter
A-	3.70	3.50-3.84	85-89.99	Very good performance
B+	3.30	3.15-3.49	80-84.99	Good performance
B	3.00	2.85-3.14	75-79.99	Satisfactory performance
B-	2.70	2.50-2.84	70-74.99	Minimum pass for students in the Faculty of Graduate Studies
C+	2.30	2.15-2.49	65-69.99	All final grades below B- are indicative of failure at the graduate level and cannot be counted toward Faculty of Graduate Studies course requirements.
C	2.00	1.85-2.14	60-64.99	

C-	1.70	1.50-1.84	55-59.99	
D+	1.30	1.15-1.49	50-54.99	
D	1.00	0.50-1.14	45-49.99	
F	0.00	0-0.49	0-44.99	

- A student who receives a "C+" or lower in any one course will be required to withdraw regardless of their grade point average (GPA) unless the program recommends otherwise. If the program permits the student to retake a failed course, the second grade will replace the initial grade in the calculation of the GPA, and both grades will appear on the transcript.