FWB 469:  
CONSERVATION AND MANAGEMENT OF LARGE MAMMALS  
Fall 2011  
TR 10:00-11:15  107 Wagar  3 credits  

Instructor:  
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Synopsis:  
This applied ecology course will utilize principles of behavior, ecology, population dynamics, and conservation as they relate to large mammals.  Primary emphasis will be on North American megafauna, but time will also be devoted to international wildlife.  

Readings:  
We will not have a mandatory textbook for the class.  However, a recommended text would be:  

Although the text is not required, it could be useful for some of your course assignments.  Additional course material will be taken from the primary literature and other relevant readings.  For access to course materials on RamCT you will need an eID user name and password.  Visit http://ramct.colostate.edu and find the “student resources” tab to learn more about RamCT.  

Course Structure  
Lecture will be presented Tuesdays and/or Thursdays.  A handout of the Powerpoint slides will typically be posted on RamCt prior to class.  You are expected to keep up on readings associated with lectures.  

Reading Discussions  
Throughout the semester, we will have Reading Discussions focused on papers from the scientific literature.  Typically, a team of 2 students will be assigned to lead each discussion section.  The lead students are expected to submit 3 -5 discussion questions on the reading for posting on RamCT no later than the class period before the discussion.  

At the start of the discussion section, the lead students are expected to provide a thorough yet concise overview of the papers via a 10 minute Powerpoint presentation.  In the summary, you should: 1) review the major points of the paper, 2) raise topics of interest (i.e., highlight novel results and conclusions), 3) raise any questions or objections you have with the methods, results, and/or conclusions, 4) tie the material covered into related literature and your own experiences (e.g., does it reinforce or contradict results or conclusions from other publications?), and 5) cite parts of the paper that you don’t understand and request clarification for the group discussion.  Following the summary, the lead students should then be prepared to actively generate and facilitate discussion for the rest of the discussion section.
**Individual Species Presentation**

Each student will pick one North American large mammal species, and deliver to the class a 10 minute Powerpoint presentation in the style of a scientific conference (8 minute lecture, 2 minute question section) reviewing the basic life history and recent research for their species. Topics to be discussed should include distribution, development and reproduction, ecology, behavior, habitat requirements, conservation or management status, and interesting research studies recently published in the scientific literature. Prior to the classroom presentation, each student will provide the Powerpoint presentation to be posted on RamCt.

**Research Paper and Presentation**

Each student will use the primary literature to research and prepare a term paper covering an important, current conservation issue involving a large mammal species or group of large mammal species. The large mammal conservation topic will be the student’s choice. The term paper should consolidate what is known about the large mammal conservation issue, identify the major management problems contributing to the conservation concern, critically evaluate how proposed or ongoing programs are dealing with these factors, and synthesize the information into a relatively concise research paper.

Papers should be at least 10 pages and no longer than 20 pages (not including Literature Cited), with 12 point font and 1.5 line spacing. Format for references cited in the text and listed in the Literature Cited section should follow guidelines for The Journal of Wildlife Management:


You will not necessarily need the traditional sections of a scientific research paper (Intro, Methods, Results, Discussion, etc.); your paper may be divided into sections as you see fit. However, you must include an Abstract and Literature Cited section. In order to assess the current state of knowledge on your topic you must utilize the primary literature. You should cite AT LEAST 10 primary sources from the scientific literature, including at least 5 recent (year 2005+) references (this does not include “gray literature”, book chapters, agency reports, or web sites!); note that 10 primary references is a MINIMUM, but more are expected to achieve a high grade.

The research paper will be submitted mid-semester, at which point it will be graded and receive a formal peer review by another student and the instructor. Peer reviews will be returned to the author, who will then be expected to revise the paper according to the reviews and submit a final revision toward the end of the semester.

After submission of final papers, each student will prepare and present their paper before the class in a 15 minute Powerpoint presentation, in the style of a scientific conference (12 minutes lecture, 3 minutes question section). Prior to the classroom presentation, each student will provide the Powerpoint presentation to be posted on RamCt. Each student will also provide a set of 3 questions relevant to their large mammal conservation issue project to be considered for use for the final.

**Assignments**

Assignment may include take-home problem sets and preparation and position statements for in-class debates. Assignments are due at the start of the class on the due date, and will be penalized 10% if received in the afternoon or evening of the due date. No problem sets will be accepted after the due date, unless we accept a catastrophic reason in advance.

**Field Trips**

We are planning a field trip to Yellowstone National Park/Teton National Park/Jackson Elk Refuge, and perhaps the Colorado Division of Wildlife Research Pens in Ft. Collins. All students are expected to participate in field trips. Details of the field trips will be discussed in class.

**Conservation Activity**

Each student will be required to conduct a volunteer activity relating to conservation (preferably large mammal ecology, management, and/or conservation) during the semester. Possibilities include, but certainly are not limited to: 1.) work at local conservation groups or zoos, 2.) assisting ongoing scientific research programs 2.) participation in conservation education programs, 3.) delivering a public talk or seminar, 4.) involvement in a conservation activity with the Student Chapter of The Wildlife Society or The Society for Conservation Biology, 5.) writing to
politicians regarding conservation issues, 6.) writing articles regarding conservation issues for the popular press, etc. In the final week of class, students will deliver brief presentations of their volunteer activity.

Exams

There will be two examination periods – a Midterm and a Final. Exams may include multiple-choice, true/false, short-answer, and essay questions. Exam questions will be taken from lectures, guest lectures, lecture readings, discussion readings, and field trips. Make-up or early exams are seldom given; rare exceptions are made for catastrophes truly beyond your control. In these cases, I must be notified before the exam and I must have written verification. If I do not have a valid excuse from you before the exam, you will receive a 0. Once I have returned an exam you have 24 hours to identify any arithmetic errors on my part and I will correct them. If you did not detect arithmetic errors, but want question(s) re-graded, you must submit the exam with a written explanation of your arguments within one week after it was returned in class. Beware! If you submit an exam for re-grading I will re-grade the entire exam to ensure no other mistakes were made (this may or may not benefit you).

Grading

**TENTATIVE** point allocation for evaluation of students:

<table>
<thead>
<tr>
<th>Component</th>
<th>TOTAL POINTS</th>
<th>APPROXIMATE %</th>
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<tbody>
<tr>
<td>Midterm</td>
<td>100 points</td>
<td>21%</td>
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<tr>
<td>Final</td>
<td>125 points</td>
<td>26%</td>
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<tr>
<td>Research Term Paper</td>
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<tr>
<td>1st Submission</td>
<td>70 points</td>
<td>21%</td>
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<tr>
<td>Revision/Improvement</td>
<td>30 points</td>
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<tr>
<td>Research Presentation</td>
<td>20 points</td>
<td>8%</td>
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<tr>
<td>Term Paper Peer Review</td>
<td>20 points</td>
<td>4%</td>
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<tr>
<td>Individual Species Presentation</td>
<td>20 points</td>
<td>4%</td>
</tr>
<tr>
<td>Problem Sets/Assignments</td>
<td>ca. 20 points</td>
<td>4%</td>
</tr>
<tr>
<td>Discussion Lead</td>
<td>20 points</td>
<td>4%</td>
</tr>
<tr>
<td>Participation/Attendance</td>
<td>20 points</td>
<td>4%</td>
</tr>
<tr>
<td>Conservation Activity</td>
<td>10 points</td>
<td>2%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>480 points</td>
<td></td>
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Cutoffs for grades typically will be based on the following percentages: 90-100 = A; 80-89 = B; 70-79 = C; 60-69 = D; ≤ 59 = F; in some instances grades might be based on the performance of the entire class.