Extinction of Species
ZOO/FWE/ENV STUDIES 360
Fall 2011 Course Description

When and Where: MWF, 11:00-11:50 am, 105 Psychology Building

Instructor (Office hours by appointment)
Zach Peery, A233 Russell Labs, mpeery@wisc.edu

Teaching Assistants
April Sansom, sections 309, 310, 315, 451 Birge Hall, acsansom@wisc.edu, office hours by appointment.
Catalina Vasquez-Carrillo, sections 305, 307, 308, A226 Russell Labs, vasquezcarri@wisc.edu, office hours by appointment.
Andy Cassini, sections 301, 302, 303, 532 Animal Sciences, agcasssini@wisc.edu, office hours by appointment.
John Pokallus, sections 312, 313, 314, B-7 Russell Labs, jpokallus@wisc.edu, office hours: Mondays 2:30-3:30, or by appointment.
Stacie Robinson, sections 304, 306, 311, 208 Russell Labs, sjrobinson@wisc.edu, office hours by appointment.
**Your reaching assistant will be your primary contact and source of information for this course*

1. **Lectures**
   The topic of extinction and loss of natural biological diversity is complex and global with potential effects on all elements of society. Lectures will cover a diverse interrelated set of topics, and there will be guest lectures presented by speakers with special expertise and experience. For lectures given by the instructor, pdf files of presentations will be posted on the course website at Learn@UW. Lecture materials will generally be posted the evening prior to the lecture. Lecture materials may or may not be made available by guest lecturers. All students registered for this class have been enrolled as users on the site for this class. You can access this site from your MyUW page. If you have problems accessing the site, please contact DoIT at 264-HELP.

2. **Discussion Sections**
   The one-hour weekly discussion is an essential component of the course as ***40% of your grade will be determined there (see below). Attendance is mandatory and will be taken every section. Each unexcused absence will lower your final grade and, without active participation in discussion sections, you will not do well in this course.*** In these discussions, you will have the opportunity to discuss and debate a series of important and controversial issues in conservation. Discussions will general be centered on two scientific papers that will be assigned each week, although lecture materials will serve as a source of information to be considered in discussions as well. Discussion sections will be led by the TAs listed above. Two to three unannounced short quizzes will be given during the course of the semester in each discussion section to assess whether or not students have read the discussion reading materials.

3. **Reading Assignments**
   Reading assignments will come from the required text and readings posted on Learn@UW. Readings fall into two categories: *lecture readings* and *discussion readings*. Lecture reading are intended to provide background information to complement the material presented in lectures. As such, they are listed on the course syllabus adjacent to the corresponding lectures. They should be read prior to the first lecture to which they are associated with on the syllabus. ***Note that the material in lecture readings is "fair game" for exams***. Lecture readings will come from the required text:

4. Hunter, M. L., Jr, and J. Gibbs. 2007. Fundamentals of Conservation Biology, 3rd Edition. Blackwell Publishing.

The second category, discussion readings, will supply the material for discussion debates and also posted on Learn@UW. You will not be tested on the material in these readings in midterm exams, ***but they are mandatory reading prior to discussion sections***. Without an understanding of discussion readings, you will be unable to participate in discussion sections and unlikely to be successful in this course.

5. **Grading**

Your grade will be based upon two midterm exams, a final exam, and your participation in your Discussion Section. The percentage contribution of each of these to your final grade will be as follows:

Midterm 1: 20%
Midterm 2: 20%
Final: 20%
Discussion participation--40%

Final grades will be assigned according to weighted percentages of your scores in these four areas: 90-100% = A, 88-89.99% = AB, 82-87.99% = B, 78-81.99% = BC, 70-77.99% = C, 60-69.99% = D, <60% = F.

5. **Exams**

Exams will be multiple-choice so bring a no. 2 pencil (scantrons will be provided).

6. **Missed Exam Policy**

Exams can only be missed due to (1) illness that reasonably prevents the student from attending class, or (2) the student is a member of a UW athletic team and the exam or discussion section coincides with a UW sponsored athletic event. In the case of an athletic event, notification from your coach or athletic director will be required at least 14 days prior to the exam or discussion. **Notification of the need to miss exams or discussion sections should be directed to your TA.**

7. **Disability Resources**

Your success in this class is important to me. If there are circumstances that may affect your performance in this class, please let me know as soon as possible so that we may work together to develop strategies for adapting assignments to meet both your needs and the requirements of the course. The McBurney Disability Resource Center (263-2741) provides resources for students with disabilities. You will need to provide documentation of disability to them in order to receive official university services and accommodations.

8. **Academic Misconduct**

Academic misconduct, such as cheating and plagiarism, will be taken very seriously and sanctions will be imposed according to the discretion of the instructor and policies and procedures set forth in UW-Madison's Academic Misconduct Guidelines (http://www.ls.wisc.edu/handbook/ChapterSix/chVI-11.htm).

9. **Course Materials**

The Course Description (this document), Textbook Reading List, Discussion Topics and Reading List, and discussion reading materials can be accessed at Learn@UW.

LECTURE OUTLINE - EXTINCTION OF SPECIES, FALL 2011

Lecture		Textbook Readings
Introduction to Species and Extinction		
Fri, Sept 2	Class introduction and need for species conservation	
Mon, Sept 5	Labor Day	
Wed, Sept 7	Species - the cornerstones of biodiversity	pages 22-33
Fri, Sept 9	How are species distributed geographically?	
Mon, Sept 12	Measuring species diversity: how many species are on earth?	
Wed, Sept 14	The origin of species: evolution and speciation	
Fri, Sept 16	Extinction: a natural versus human-caused process	
Mon, Sept 19	Why do we care? Intrinsic and utilitarian values	pages 40-63
The "Evil Sextet" of Human-caused Extinctions		
Wed, Sept 21	Overexploitation of species	pages 184-203
Fri, Sept 23	Case study: dolphins, tuna, and turtles	
Mon, Sept 26	Habitat loss, fragmentation, and degradation	pages 150-182
Wed, Sept 28	Case study: sloths in Costa Rica	
Fri, Sept 30	Exotic and overabundant species	pages 205-222
Mon, Oct 3	Case study: cats and their impacts	
Wed, Oct 5	Climate change, a looming crisis	
Fri, Oct 7	Pollution	
Mon, Oct 10	Emerging and catastrophic diseases	
Wed, Oct 12	**EXAM 1**	
Conservation Strategies for Endangered Species		
Fri, Oct 14	Identifying endangered species	pages 130-148
Mon, Oct 17	Captive breeding for endangered species	
Wed, Oct 19	Conservation of endangered species in the wild	pages 310-325
Fri, Oct 21	Red-cockaded woopeckers and Atwaters prairie chickens	
Mon, Oct 24	Demographic factors that cause extinction	
Wed, Oct 26		
Fri, Oct 28	Diagnosing the cause of endangerment	pages 281-308
Conservation of Genetic Diversity		
Mon, Oct 31	What is genetic variaton and why is it important?	pages 86-106
Wed, Nov 2	Inbreeding and extinction	
Fri, Nov 4	Hybridization and"genetic" extinction	
Mon, Nov 7	Defining units for conservation	
Wed, Nov 9	Case study: molecular methods in marten research	
Fri, Nov 11	**EXAM 2**	
Conservation of Ecosystems		
Mon, Nov 14	Role of species in ecosystem conservation	pages 252-279
Wed, Nov 16	Integrating species and ecoystem management	
Fri, Nov 18	Protected areas: history, design and management	pages 226-247

Human and Political Dimensions in Species Conservation

Mon, Nov 21	Role of governments in conservation	pages 372-387
Wed, Nov 23	Endangered Species Act	
Fri, Nov 25	Thanksgiving Break	
Mon, Nov 28	Management of endangered species on private lands	
Wed, Nov 30	Human dimensions in carnivore conservation	
Fri, Dec 2	Community-based conservation	
Mon, Dec 5	Role of conservation organizations	
Wed, Dec 7	The Nature Conservancy	
Fri, Dec 9	Sustainability I	
Mon, Dec 12	Sustainability II	
Wed, Dec 14	The future: despair, hope and making a difference	

Mon, Dec 19 **Final Exam (10:05 am - 12:05 pm)**