Bio 327: Conservation of Wildlife

Lecture time: T Th 2:00-3:15, SH247
Instructor: Dr. Rebecca Lewison
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4-8287
PS 157A (in PS157)
Office hours: By appointment (Please email me and we will set up a time)

COURSE DESCRIPTION

This is a General Education class for non-biology majors designed to introduce you to the key threats and challenges that affect the conservation of wildlife throughout the world. As we discuss the obstacles to wildlife conservation, we'll also explore some of the conservation strategies and activities designed to protect these species.

This course is designed for students at all levels. There will be two primary course activities: in-class exercises and exams. Students' grades will reflect their experience level.

COURSE FORMAT

You will be responsible for readings on the topics we cover. Readings will be listed on the course schedule and will be posted on Blackboard. **The class will be interactive and will require your attendance and active participation.**

MATERIALS

For this class, you will need to purchase a clicker. Clickers are an excellent tool to help you get engage and participate in the class: I believe that by engaging you in the course, this will be a more interesting and meaningful course for you. I will use clickers to during classes, asking you to answer questions about your readings, about course material and concepts covered in class. **Upon purchase, you will need to register your clicker because I will start using it in week 2 of the class for attendance and participatory exercises in class.**

To find about purchasing a clicker and how to register it, see http://clicker.sdsu.edu/student_start.html. Please follow the instructions to **Register your Clicker through Blackboard.** We will be using the clickers through Blackboard

The readings from the class are going to be published, peer-reviewed articles. My goal is to pick articles that are accessible to a general, non-major audience. Still, there will likely be some unfamiliar vocabulary in the readings. Be prepared to take a few minutes to look these up online or in a text when you come across a term you don't understand. I will pick articles that are short enough to allow you to look up unfamiliar words/vocabulary online. **You should expect to be asked about these terms in class.**

COURSE OBJECTIVES

The goal of this course is to give you a solid foundation in key concepts in wildlife conservation. This will draw from on core concepts of different fields in ecology, biology, economics and anthropology and will touch on philosophical, ethical, or cultural aspects of conservation.

As we cover the different threats and challenges, I will introduce both the theoretical (scientific background) framework for the concepts and the empirical (real-world) application of the science.

Specific course objectives are to:

- Understand the key threats and challenges to wildlife conservation worldwide
- Stimulate discussion and evaluation of conservation science
- Encourage students to engage in the course and challenge their own perspectives

CONTACTING ME

I encourage you to meet with me if you have questions or concerns.
When: By appointment. Please email me and we will find a time to talk.
Where: Physical Sciences (PS) 157A, inside my lab PS157.
How: Just knock on the lab door and walk on in. My graduate students work in the lab, so if you stop by when I'm not there, please don't rely on them to pass verbal messages on to me. You can leave a note on my door or in my mailbox in the Biology office.

EXPECTATIONS

I expect all course participants (students and instructors) to be:

- Prompt
- Prepared
- Respectful (This includes having all communication devices off or silent)
- Engaged in class discussion/activities
- Honest

WHAT WILL HAPPEN IF THESE EXPECTATIONS ARE NOT MET?

Part of your grade will be based on your attendance, preparation and participation in class, so a failure to do either will be reflected in your grade. Disrespectful behavior will not be tolerated.

ACADEMIC DISHONESTY

Cheating has rarely been a problem in my classes, and warning you about the consequences may seem unnecessary. Nevertheless, to avoid any confusion, this is the course policy: If you are caught cheating in an exam or on an assignment, you will receive a zero on the exam or assignment. In addition, the event will be reported to campus judicial authorities and may lead additional actions from the University. For more information on the consequences of academic dishonesty, please see: http://www.sa.sdsu.edu/srr/judicial/CheatingDisruption.html
Remember, your academic work must be your own. If you need clarification on what constitutes plagiarism, cheating, and other inappropriate conduct, please see: http://science.widener.edu/svb/essay/plagiar.html

ASSIGNMENTS

To be prepared for lectures, you will need to have read and be ready to discuss/answer questions on assigned readings. All assigned readings are listed on the course schedule and will be available on Blackboard. **Again, all required reading are listed on the course schedule and posted on Blackboard.**

GRADING

You will be graded on:

Course assignments	Points	%
Midterm exam 1	90	26
Midterm exam 2	90	26
Final Exam	110	32
Participation/attendance	50	15
TOTAL	**325**	**100**

Although the general requirements are the same for students at all levels, expectations of upper level student performance will be higher. That means if there is a curve on exams, I will have a separate curve for lower division and upper division students.

STUDENTS WITH DISABILITIES

Students who need accommodation of disabilities should contact me privately to discuss specific accommodations for which they have received authorization. If you have a disability, please contact Student Disability Services at 619 594 6473, Calpulli Center, Suite 3101 before making an appointment to discuss this with me.

EMERGENCIES

Emergencies, by definition, are unexpected. I cannot accommodate individual schedules, but for genuine emergencies I will work with you to ensure you can complete assignments, tests etc… on time. However, I will only do so if you come talk to me immediately when such a situation arises.

If you have any questions about this material, I would be happy to talk with you about it (my contact information is listed on the first page). When you are clear on the information covered in this syllabus, please read, sign, and date the following statement and return it to me.

I have read the Bio 327 Course Syllabus. I understand and accept its contents. I also understand that work in this course must be my own work and all assignments and tests must be completed with a passing grade to receive a passing grade for this course.

_____

Printed name

_____ _____

Signature **Date**

Lecture schedule and assigned readings
Biol 327, Spring 2009

Date	D	Topic	Reading assignment
1/22	Th	Course intro: syllabus & topic review	Review the syllabus
1/27	T	Biodiversity: what is it and why does it matter?	Thompson & Starzomski 2007
1/29	Th	Who are we and why are we here	Bjurlin & Cypher 2005
2/3	T	Population decline: genetic consequence	Amos & Balmford 2001
2/5	Th	Population decline: ecological consequences	Berec et al 2007
2/10	T	Habitat loss: what is it	Fahrig 2003 *(don't panic, you aren't going to have to read the whole thing.)*
2/12	Th	Habitat loss: how does it impact wildlife	Chapman et al. 2006
2/17	T	Invasive species	Sax et al. 2007
2/19	Th	Exploitation: Harvest and Bushmeat	Milner-Gulland & Bennet 2003
2/24	T	Chains of extinction	Pace et al. 2000
2/26	Th	Evil quartet: the final four	Wilcove et al. 1998
3/3	T	Review	
3/5	Th	Midterm 1	
3/10	T	Disease ecology	Keesing et al. 2006
3/12	Th	Impact of recreation	Creel et al. 2002
3/17	T	Climate change	Botkin et al. 2007
3/19	Th	Pet Trade	TBA
3/24	T	Contaminants/pollution (GUEST LECTURE)	Depledge & Galloway 2005
3/26	Th	Assessing population change: the crystal ball	Morris & Doak 2002 (Chap 1)
3/31	T	**SPRING BREAK/Cesar Chavez**	
4/2	Th	**SPRING BREAK**	
4/7	T	Assessing population change: the crystal ball_II	Morris & Doak 2002 (Chap 1)
4/9	Th	Review	
4/14	T	Midterm 2	
4/16	Th	Wildlife at what cost: valuation of wildlife	Ericsson et al. 2007
4/21	T	Legislation	Scott et al. 2005
4/23	Th	Restoration	Suding et al. 2004
4/28	T	Ecotourism	Simpson 2008
4/30	Th	Protected areas	Pressey et al. 2007
5/5	T	Marine wildlife conservation	Norse & Crowder 2005
5/7	Th	Biodiversity: Revisiting the core	Gaston & Fuller 2007
5/12	T	Review	
5/21	Th	FINAL EXAM, 1-3pm	

Reading List (Full citation of assigned reading articles)

Amos & Balmford 2001. When does conservation genetics matter. Heredity 87 (2001) 257±265

Armstrong & Seddon 2008. Directions in reintroduction biology. TRENDS in Ecology and Evolution Vol.23 No.1

Berec et al 2007. Multiple Allee effects and population management. TRENDS in Ecology and Evolution Vol.22 No.4

Brashares et al. 2004 Bushmeat Hunting, Wildlife Declines, and Fish Supply in West Africa. Science, 306 (5699): 1180-1183

Bjurlin & Cypher_2005. Encounter Frequency with the Urbanized San Joaquin Kit Fox Correlates with Public Beliefs and Attitudes Towards the Species. Endangered Species Update; Jul-Sep 2005; 22, 3;

Botkin et al. 2007. Forecasting the Effects of Global Warming on Biodiversity. Bioscience Vol. 57 No. 3

Chapman et al. 2006. What hope for African primate diversity? East African Wild Life Society, Afr. J. Ecol., 44, 116–133

Creel et al. 2002. Snowmobile Activity and Glucocorticoid Stress Responses in Wolves and Elk. Conservation Biology, Volume 16, No. 3, Pages 809–814

Depledge and Galloway 2005. Healthy Animals, Healthy Ecosystems. Front Ecol Environ 2005; 3(5): 251-258

Destefano et al. 2005. Suburban wildlife: Lessons, challenges, And opportunities. Urban Ecosystems, 8: 131–137, 2005

Didham et al. 2005. Are invasive species the drivers of ecological change? TRENDS in Ecology and Evolution Vol.20 No.9

Fahrig 2003. Effects of habitat fragmentation on biodiversity Annu. Rev. Ecol. Evol. Syst. 2003. 34:487–515

Frankham, R. Genetics and extinction. Biological Conservation 126 (2005) 131–140

Gurevitch & Padilla2004. Are invasive species a major cause of extinctions? TRENDS in Ecology and Evolution Vol.19 No.9 September 2004

Keesing et al.06. Effects of species diversity on disease risk. Ecology Letters, (2006) 9: 485–498

Lindenmayer & Fischer 2007. Tackling the habitat fragmentation panchreston. TRENDS in Ecology and Evolution Vol.22 No.3

Marshall et al_2007. Conflicts between humans over wildlife management: on the diversity of stakeholder attitudes and implications for conflict management. Biodivers Conserv (2007) 16:3129–3146

Mccauley 2006. Selling out on nature. Nature Vol 443, 7

Milner-Gulland & Bennett 2003. Wild meat: the bigger picture. TRENDS in Ecology and Evolution Vol.18 No.7 July 2003

Pace et al. 1999. Trophic cascades revealed in Diverse ecosystems, TRENDS in Ecology and Evolution vol. 14, no. 12

Sakar et al. 2006. BIODIVERSITY CONSERVATION PLANNING TOOLS: Present Status and Challenges for the Future Annu. Rev. Environ. Resour.. 31:123–59

Scott e al. 2005. Recovery of Imperiled Species under the Endangered Species Act: The Need for a New Approach. Frontiers in Ecology and the Environment, Vol. 3, No. 7.

Seddon et al. 2007. Developing the Science of Reintroduction Biology. Conservation Biology Volume 21, No. 2, 303–312

Strayer et al. 2006. Understanding the long-term effects of species invasions, TRENDS in Ecology and Evolution Vol.21 No.11

Suding et al. 2004. Alternative states and positive Feedbacks in restoration ecology. TRENDS in Ecology and Evolution Vol.19 No.1

Thompson & Starzomski 2007. What does biodiversity actually do? A review For managers and policy makers. Biodiversity and Conservation 16:1359–1378

Wilcove et al. 1998. Quantifying threats to imperiled species in the United States Bioscience 48, 8