EEB 2208 (Introduction to Conservation Biology) - Spring 2009 Syllabus

This course will provide an introduction to the discipline of conservation biology. The first two-thirds of the course will focus on the biological aspects of the discipline. Topics covered will include patterns of biodiversity and extinction, causes of extinction and population declines, techniques used to restore populations, landscape level conservation planning, and the role of conservation in protecting ecosystem services. The final third will cover the practical aspects of implementing conservation actions and will include lectures on conservation economics and conservation law.

Instructor: Chris Elphick (office: 300A BioPharm, behind the elevator at the north end of the building)
Teaching assistant: Trina Bayard (office: BioPharm 310)
Lecture: M, W 2:00-3:15 PM **Location:** BPB 131 **Credits:** 3

Text book: *Essentials of Conservation Biology* (R.B. Primack, 4th Edition, Sinauer) is strongly recommended reading. On exams I will assume that you have read this material and may ask questions (though not many) about topics that are not covered in lectures.

Research paper readings: In some lectures, I will provide supplemental readings from the primary research literature to augment the text book readings. These readings will be the subject of class discussions and graded in-class questions; they may also appear on exams. See the on-line syllabus for more information on when these discussions will occur and what is expected of you.

Optional reading that might be helpful: Other introductory textbooks that might be worth looking at for supplemental information are *Fundamentals of Conservation Biology* by Malcolm Hunter and *Conservation Biology* by Andrew Pullin. If you are interested in more advanced information, then look at *Principles of Conservation Biology* by Groom, Meffe and Carroll. Finally, if you are really interested in this topic, then you will be well served if you check out recent issues of the journal Conservation Biology (note that to read articles you will need to be connected to the UConn system).

Questions: Please ask lots of them! Class is much more interesting (for me and you) when people ask questions. If you send me questions over email, I will post them (anonymously) along with the answers on this web site, so that everyone can benefit from the answers.

Office hours: I do not have fixed office hours because they inevitably do not work for someone. But, I will try to always be present for at least 15 minutes before and after each lecture to answer simple questions. I'm also happy to meet at other times by appointment. The best option is to email me, telling me (a) what you want to discuss and (b) when would be good times to meet (Mon, Wed or Thurs are usually best).

My course objectives: In general, my goal is to provide you with a basic understanding of the scientific field of conservation biology and the application of science to solving conservation problems. If you are just taking this course out of general interest, then hopefully it will provide you with a sense of how the biological sciences can be applied and will give you a better understanding of the main issues in conservation biology. For those of you wishing to pursue a career in conservation biology, I hope that this course will give you a solid foundation on which to build with future courses (e.g., EEB 5310). If this is your goal, I'd also encourage you to check out EEB's joint BS/MS program in Biodiversity and Conservation Biology. There are also links to good sites for finding internships and jobs (short-term and permanent) in conservation biology on the course web site.

Overall teaching philosophy: My primary goal is for you to learn and understand basic concepts and general ideas, rather than for you to learn lots of very specific facts (though to get an A or a high B, you will need to know plenty of details too). I will expect you to know examples relating to each major concept, so that you can relate the theory to practical, real-world situations. I won't expect you to know, for example, exactly how many species have gone extinct in the last 500 years. But, I will expect you know approximately how many (i.e., whether it is closer to 6 or 20,000). The text book readings are intended to complement the lectures. My lectures will not repeat verbatim what is in those readings, and I will often use different examples or cover somewhat different topics. Both the lecture material and the readings, however, are important and could appear on exams.

Lecture schedule (subject to change, check web site for latest updates)

1	21 Jan	What is conservation biology?	Chapter 1
2	26 Jan	Interpreting statistics (when there's an agenda)	Chapter 6
3	28 Jan	Forms of biological diversity	Chapter 2
4	2 Feb	Patterns of biodiversity	Chapter 3 **
5	4 Feb	Global change	pp. 205-212; Root et al.
6	9 Feb	Extinction rates	Chapter 7 **
7	11 Feb	Patterns of extinction	Chapter 8
8	16 Feb	Causes of population decline	Chapter 8 **
9	18 Feb	Habitat loss & degradation	Chapter 9
10	23 Feb	Over-exploitation	Chapter 10 **
11	25 Feb	Invasive species	Chapter 10
12	2 Mar	Disease	Study lectures 1-12 **
	4 Mar	**Mid-term Exam**	Study lectures 1-12
-	9 Mar	No Class: SPRING BREAK	Next discussion paper …
-	11 Mar	No Class: SPRING BREAK	... which is long!
13	16 Mar	Small population conservation	Chapter 11 **
14	18 Mar	Conservation genetics	Chapter 12
15	23 Mar	Population viability analysis	Chapter 13
16	25 Mar	Ex situ conservation, release programs	Chapter 14 **
17	30 Mar	Conservation reserves	Chapter 15
18	1 Apr	Reserve networks	Chapter 16
19	6 Apr	Conservation in the matrix	Chapter 18 **
20	8 Apr	Management	Chapter 17
21	13 Apr	Habitat restoration	Chapter 19 **
22	15 Apr	Economics of conservation	Chapters 4, 5
23	20 Apr	Conservation law	Chapter 20
24	22 Apr	International legislation	Chapter 21, 22 **
25	27 Apr	**Poster Presentations; Session 1***	Study everything lots!!
26	29 Apr	**Poster Presentations; Session 2***	Study everything lots!!
-	-	**Final exam** (see web site for date)	Cumulative

* Class will meet in the North Reading Room in the Wilbur Cross Building.
** Additional reading (required for in-class discussion) – see web site for details.