Course web site: http://hydrodictyon.eeb.uconn.edu/eebedia/index.php/Introduction_to_Conservation_Biology

EEB 2208 (Introduction to Conservation Biology) - Spring 2012 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 (chris.elphick @ uconn.edu; office: 300A BioPharm, behind elevator in north wing)
Teaching assistant: Brian Klingbeil (brian.klingbeil @ uconn.edu; 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, 5th Edition, Sinauer).

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 syllabus below for information on when discussions will occur.

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

Office hours: I will generally be present in the lecture hall at least 15 minutes before and after each lecture to answer questions. I am also happy to meet at other times by appointment. Just email me, telling me (a) what you want to discuss, and (b) when would be good times to meet (Mon, Tues, or Wed will usually be best). The TA is also available to answer questions by email, during their office hours, and/or by appointment.

Course objectives and expectations: My goal is to provide a basic understanding of the field of conservation biology and the application of science to solving conservation problems. My primary goal is for you to learn and understand basic concepts and general ideas, although 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 memorize all of the minutia in my notes; for example, I wouldn't ask you *exactly* how many species have gone extinct in the last 500 years. But, I will expect you to have a solid understanding of the core information that would be required of you in a job in this field; for example, I could ask you whether the number of extinctions is closer to 6 or 20,000. 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. Specific things that I hope you will learn are:

- to understand the basic issues that define the field of conservation biology;
- to use general principles to think about ways to solve specific conservation problems;
- specific factual information about major issues in conservation biology;
- specific examples of all important concepts, problems, and solutions;
- to extrapolate from examples I provide in class to other cases with similar characteristics (e.g., that I ask about in exams!);
- to read scientific papers and understand the main points that they make;
- to interpret graphs, tables, and simple statistics presented in the scientific literature;
- to acknowledge scientific uncertainty when it exists, and to recognize when it hampers understanding and when it does not;
- to present scientific information to your peers in a format commonly used by scientists.

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

1	18 Jan	What is conservation biology?	Chapter 1
2	23 Jan	Interpreting statistics (when there's an agenda)	Chapter 6; Wikipedia link on web site
3	25 Jan	Forms of biological diversity	Chapter 2
4	30 Jan	Patterns of biodiversity	Chapter 3; Hahs et al. 2009**
5	1 Feb	Extinction rates	Chapter 7
6	6 Feb	Patterns of extinction	Chapter 8; Short et al. 2011**
7	8 Feb	Causes of population decline	Chapter 8
8	13 Feb	Habitat loss & degradation	Chapter 9; Fonseca 2009**
9	15 Feb	Over-exploitation	Chapter 10
10	20 Feb	Invasive species & Disease	"Cane Toads"; Myers et al. 2007**
11	22 Feb	Global change	pp. 205-212; Thomas et al. 2004
12	27 Feb	Ecosystem services	Kross et al. 2011**; **Poster info due**
13	29 Feb	Small population conservation	Chapter 11
	5 Mar	**Mid-term Exam**	Study lectures 1-13
14	7 Mar	Population viability analysis	Chapter 13
-	12 Mar	No Class: SPRING BREAK	Reading for poster projects ….
-	14 Mar	No Class: SPRING BREAK	
15	19 Mar	Conservation genetics	Chapter 12; Garrick et al. 2012**
16	21 Mar	Ex situ conservation, release programs	Chapter 14
17	26 Mar	Conservation reserves	Chapter 15
18	28 Mar	Reserve networks	Chapter 16; Fuller et al. 2010**
19	2 Apr	Conservation in the matrix	Chapter 18
20	4 Apr	Management	Chapter 17; Fleishman et al. 2011**
21	9 Apr	Habitat restoration	Chapters 19, 4
22	11 Apr	Economics of conservation	Chapter 5; Gutiérrez et al. 2011**
23	16 Apr	**Poster Presentations; Session A‡**	
24	18 Apr	**Poster Presentations; Session B‡**	Chapter 20
25	23 Apr	Conservation law	Chapters 21
26	25 Apr	International legislation	Chapter 22; Economist 2008/2012**
-	-	**Final exam** (see web site for date)	Cumulative (entire course)

‡ Class will meet in the North Reading Room in the Wilbur Cross Building.
** In-class discussion of additional reading is required – see web site for details.