

WFS 433/533
Amphibian Ecology and Conservation
Spring 2008

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Meeting Time & Place: T,Th 5:05–7:05 p.m., 113 PBB (2 field trips required: see pg 3)

Course Credits: 3 credits

Life History Text: Biology of Amphibians, 1994, 2nd edition (ISBN 080184780X)
Authors: William E. Duellman and Linda Trueb

Conservation Text: Readings will come from contemporary literature and several books.

Course Goal: To expose students to the life history, ecology, conservation and management of amphibians through a combination of lectures, readings, class discussions, and field experiences.

Weights of Academic Assessments:

WFS 433		WFS 533	
● Test #1	30%	● Test #1	25%
● Test #2	30%	● Test #2	25%
● Amphibian ID Exam	20%	● Amphibian ID Exam	20%
● Participation ^{1,2}	20%	● Participation ^{1,2}	10%
		● Presentation ³	20%

¹Participation includes attendance on the 2 field trips and facilitating a discussion on an amphibian paper. You will earn 5% and 2.5% for attending each field trip for WFS 433 and 533, respectively. For the discussion, you will earn 10% and 5% for leading in WFS 433 and 533, respectively.

²If you miss a field trip, you can either: (1) attend the SE PARC meeting, (2) write a 10-page scientific paper on an amphibian topic of your choice, or (3) accept the percent deduction (5% or 2.5%) in your final grade corresponding with the appropriate course number.

³One hour lecture on an amphibian topic – please see page 3 for a list of available topics.

Your course grade will be determined using the following scale:

Grade	Final Weighted Percent		Grade	Final Weighted Percent
A	90–100%		C	70–76%
B+	87–89%		D	60–69%
B	80–86%		F	<60%
C+	77–79%			

Extra Credit:

You can positively influence your final grade as much as **4.5%** by volunteering for extra credit. Volunteer work must be related to herpetofauna, and can include work on university projects, government agencies or NGOs. For every **8 hours** of volunteer work, your final grade will be increased by **1.5%** up to **4.5%** (24 hours total). All volunteering must be completed by **25 April 2008**. A volunteer form (see website) must be filled out by the supervising individual. Scott Dykes and Pete Wyatt (TWRA non-game biologists) often are looking for volunteer assistance (Region 4 Office: 1-800-332-0900; scott.dykes@state.tn.us, pete.wyatt@state.tn.us). Also, Wayne Schacher (consulting biologist for Seven Islands Wildlife Refuge) frequently needs help with herpetofaunal surveys (457-4355 home, wschacher@natreserv.com). Bridgid Lammers (graduate student in the UT Wetlands Program, blammers@utk.edu, 974-3897 office) needs assistance collecting tadpoles on 18-20 and 25-27 January and 18-20 and 25-27 April 2008. Lastly, you can earn 1% by attending Dr. Rick Relyea's talk on Friday, 4 April, in 307 Science & Engineering Building at 3:30 pm.

Extra credit also can be earned by attending the Annual Meeting of the Southeast Partners in Amphibian and Reptile Conservation: <http://www.separc.org/>. It is 21 – 24 February in Athens, Georgia. Your final grade will be increased by **3.5%** for attending.

<p><u>NOTE</u>: A maximum of 4.5% can be earned in extra credit in WFS 433/533.</p>
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Scientific Paper: (Make-up for Missed Field Trip) DUE: 4/24/08 or before

Choose an amphibian topic of interest (related or unrelated to a lecture topic) and write a ≥ 10 -page paper. The title page and literature cited are not included in the length requirement, and over $\frac{1}{2}$ of the 10th page must have text. The paper must be written scientifically and include ≥ 5 non-Internet references (e.g., journal article, book chapter). The style of headings, in-text referencing, and the literature cited format must follow the *Journal of Wildlife Management* (Volume 70[1]:304-320). Your paper must be double-spaced using 10- or 12-pt Times New Roman font with 1" margins.

Basic website on scientific writing:

<http://abacus.bates.edu/%7Eganderso/biology/resources/writing/HTWgeneral.html>

Good American Scientist article on scientific writing:

<http://www.americanscientist.org/template/AssetDetail/assetid/23947?fulltext=true&print=yes>

Good book on scientific writing: "The craft of scientific writing" (ISBN 0387947663)

ADA Accommodation:

Any student who, because of a disability, may require special arrangements in order to meet course requirements should contact the instructor as soon as possible to make such accommodations as may be necessary.

Religious Holy Day Observance:

A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence IF, not later than the FIFTEENTH day after the first day of the semester (i.e., 01/24/08), the student has notified the instructor of each scheduled class that the student would be absent for a religious holy day.

Tentative Lecture Schedule

Month	Day	Topics ^{1,2}	Instructors
January	10	Introduction, Tennessee Anuran ID	Gray
	15	Tennessee Anuran ID	Gray
	17	Tennessee Salamander ID	Niemiller (UT)
	22	Diversity and Evolution of Amphibia	Hoverman
	24	Amphibian Declines	Gray
	25 (Fri)	TAMP Workshop (12-4:30 pm): <i>Not Required (123 PSB)</i>	Bob and Pandy English (TWRA)
	29	ID Exam, Amphibian Declines	Gray
	31	Reproductive Strategies	Echternacht (UT)
February	5	Courtship and Mating	Gray
	7	Tadpole Ecology and Metamorphosis	Gray
	12	Tadpole Dissection Lab	Hoverman, Lammers
	14	Phenotypic Plasticity	Hoverman
	19	Phenotypic Plasticity	Hoverman
	21	SE PARC Meeting: Athens, GA	No class (attend meeting if possible)
	26	Test #1	
	28	Discuss Test #1 Estivation and Hibernation	1 WFS 533 Presentation
March	4	Predator Defenses, Amphibian Parasites	2 WFS 533 Presentations
	6	Paper Discussion #1: <i>Community Ecology</i>	Hoverman
	11	Amphibian Sampling Techniques	Gray or Burton (TVA)
	13	Field Trip (Meet at Seven Islands Wildlife Refuge)	Gray, Hoverman, Lammers
	18,20	Spring Break	
	25	Paper Discussion #2: <i>Landscape Ecology</i>	Hoverman
	27	Paper Discussion #3: <i>Class Decides</i>	Hoverman
April	1	Silviculture, Urbanization and Roads	2 WFS 533 Presentations
	3	Pesticides	Relyea (Pitt)
	8	Amphibian Malformations, UV-B Radiation	2 WFS 533 Presentations
	10	Chytrid Fungus in Panama	Brenes (SIU)
	12 (Sat)	Smoky Mountains Field Trip	Gray, Brenes, Others
	15	Ranaviruses	Gray
	17	Amphibian Diseases and Pathology	Miller (UGA)
	22	Conservation Strategies	Gray
	25	Test #2	

¹No class on 21 February (SE PARC Meeting). Interested students can attend (21 and 22 Feb) and earn **3.5%** extra credit.

²University transportation will be provided for the Great Smoky Mountains field trip but not to Seven Islands Wildlife Refuge (east Knox County). Directions will be provided to SIWR.