
Instructor: A. C. Echternacht Office: Hesler 530 974-3065 echterna@utk.edu
GTA: Todd Pierson Office: Hesler 435 317-306-6299 tpierso1@vols.utk.edu
Lecture: 1:25 - 2:15 PM MWF Hesler 602 **Laboratory:** 2:30 - 4:25 PM W Hesler 602
Texts: Pough, F.H., R.M. Andrews, M.L. Crump, A.H. Savitsky, K.D. Wells and M.C. Brandley. 2015. Herpetology, 4th Ed. Sinauer Associates, Inc., Sunderland, MA
R. Powell, Conant, R. and J.T. Collins. 1998. Field Guide to Reptiles and Amphibians of Eastern and Central North America, 4th ed. Houghton Mifflin Harcourt, Boston, MA
Powell, R., J.T. Collins and E.D. Hooper. 2012. Key to the Herpetofauna of the Continental United States and Canada, 2nd Edition, Revised and Updated. University Press of Kansas, Lawrence.

Tentative Schedule

Day	Date	Lecture Topic	Text Chapter	Laboratory Exercise
W	10 Jan	Introduction	1	Introduction
AMPHIBIANS				
F	12	The Fish-Amphibian Transition and the Origin of Tetrapods	2	
M	15	No Class: Martin Luther King Day	-	
W	17	Evolution and Characteristics of Modern Amphibians	2	Frog Natural History and Identification
F	19	Evolution and Characteristics of Modern Amphibians	3	
M	22	Biogeography	5	
W	24	Plethodontid Biodiversity and Biogeography	5	Frog Natural History and Identification
F	26	Plethodontid Biodiversity and Biogeography	6	
M	29	Physiological Ecology	7	
W	31	Reproduction and Life Histories	8	What is a species, Anyway

F	2 Feb	Reproduction and Life Histories	8	
M	5	Reproduction and Life Histories	8	
W	7	Reproduction and Life Histories	8	Building and reading phylogenies
F	9	Body Support and Locomotion	10	
M	12	Body Support and Locomotion	10	
W	14	Feeding	11	Salamander Natural History and Identification
F	16	Spatial Ecology	12	
M	19	Communication	13	
W	21	Mating Systems	14	Salamander Natural History and Identification
F	23	Diet, Foraging, and Interactions With Parasites and Predators	15	
M	26	Diet, Foraging, and Interactions With Parasites and Predators	15	
W	28	Populations and Species Assemblages	15	Lab Exam 1
F	2 Mar	Populations and Species Assemblages	16	
M	5	Lecture Exam 1		

REPTILES

W	7	Conquest of Land	2	Turtle Natural History and Identification
F	9	Evolution and Characteristics of Modern Reptiles	2	
M-F	12-16	No Class: Spring Break	-	
M	19	Evolution and Characteristics of Modern Reptiles	4	

W	21	Biogeography	5	Lizard Natural History and Identification
F	23	Biogeography	5	
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Sa	24	All day field trip: TWRA property, Campbell County, TN		
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M	26	Physiological Ecology	6	
W	28	Physiological Ecology	7	Species descriptions
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F	30	No Class: Spring Recess		
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M	2 Apr	Reproduction and Life Histories	9	
W	4	Reproduction and Life Histories	9	Species distributions
F	6	Body Support and Locomotion	10	
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M	9	Body Support and Locomotion	10	
W	11	Feeding	11	Snake Natural History and Identification
F	13	Feeding	11	
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M	16	Spatial Ecology	12	
W	18	Communication	13	Snake Natural History and Identification
F	20	Mating Systems	14	
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Su	22	All day field trip: Paint Creek Recreation Area, Greene County, TN		
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M	23	Diets, Foraging, and Interactions with Parasites and Predators	15	
W	25	Conservation and the Future of Amphibians and Reptiles	17	Final exam review
F	27	Conservation and the Future of Amphibians and Reptiles	17	
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Day	Date	Lecture Exam	Laboratory Exam
W	2 May		Exam 2 (2:45 pm)
F	4 May	Exam 2 (12:30 pm)	

Lecture: Lectures will cover selected topics concerning the biology of contemporary amphibians and reptiles with a brief review of the evolution of each of the major taxonomic groups. It does not cover extinct taxa except those ancestral to the modern taxa. A central theme will be adaptive radiation.

There are two lecture examinations, each a “final.” The first covers amphibians, and the second to reptiles. Questions will drawn be primarily from material presented in the lecture and from selected parts of Pough et al. (2015), although some material from the laboratory may be included. The format will be short answer essay (including definitions), matching, and fill-in-the-blank questions. Each of the two examinations will be worth 100 points. All questions concerning the grading of an examination must be brought to the attention of the instructor within two weeks of the return of the graded exam. After two weeks, no grade adjustments will be made. Make-up examinations will cover the same material as the scheduled examination, but the questions and the format will differ (e.g., lecture make-up exams will consist largely of essay questions). All students who request a make-up exam will be required to take it as soon as possible, and at the same time and place, as scheduled with the instructor. No exams will be given before the regularly scheduled examination has been given (i.e., no early exams).

Laboratory: The laboratory portion of this course focuses on two learning objectives: 1) the natural history and identification of Tennessee’s reptiles and amphibians; and 2) building a skillset to be a herpetologist. The former objective will be addressed using in the specimens our teaching collection, and the latter objective will be addressed using in-class activities. Bring your Powell, Conant and Collins (2012) field guide and Powell et al. (2012) identification keys with you to each laboratory session. The lab will be open and preserved material available outside of scheduled class times if prior arrangement has been made with either the instructor or the GTA. Please do not enter the lab at times when another course is scheduled in the room. The room will also be unavailable for the two hours prior to each laboratory examination.

You will be handling live specimens on occasion, and you must wash your hands thoroughly with soap before and after doing so. Be sure to rinse all of the soap off your hands before handling a specimen. You will be handling preserved specimens that are stored in 70% ethyl alcohol (ethanol or EtOH) which may both dry and irritate your skin. The use of surgical gloves, which will be provided, is recommended though not required. Do not remove specimens from the lab. Other procedures for handling preserved specimens will be discussed in the lab.

There will be two laboratory practical exams. The first covers amphibians, and the second reptiles. During these exams, you will be required to 1) identify species covered in laboratory class periods and recall aspects of their natural history we have discussed; and 2) implement the skills (e.g., building a phylogeny) we have learned during laboratory classes. Each of the two examinations will be scored out of 50 points.

In-Laboratory Assignments and Quizzes: There will be 7 short quizzes or in-class assignments, each worth a maximum of 10 points toward your final grade. Your lowest two grades on these assignments will be dropped at the end of the semester, and your grade for this portion of the class will be out of 50 points.

Field Trips: Three all say field trips are planned: 1) to newly acquired TWRA property in Campbell Co., TN on Sunday, March 24th, 2) to Paint Creek Recreation Area in Greene Co., TN, and 3) a trip to be announced later in the semester. *You are required to participate in at least two of these trips.*

On field trips, you must wear long pants and expect to find yourself wading in water that is at least knee-deep. Wear athletic shoes or other footwear that you won’t mind getting wet and muddy. Do not wear flip-flops, sandals, or

other types of shoes that won't adequately protect your feet if they are battered against rocks or if you have walk through thorny vegetation. Do not wear footwear which have soles that become slippery when wet. No class collecting will be allowed on the field trips, so bring a camera if you want a record of what you see.

Grading and Course Grades: Your grade will be determined entirely on the total points you earn on the two 100 point lecture exams, the two 50 point lab exams, and quizzes as described above (50 Points) for a total of 350 points. The grading scale will be determined by the distribution of total point scores of all of the students in the class and, as a result, letter grades will not be assigned, nor should they be assumed, for individual examinations or quizzes. There are only two guarantees: 1) if your earned point total is 93% of possible point total (326 of a possible 350 points), you will receive an A; 2) if your point total is 50% or less of the maximum possible total (175 of a possible 350 points), you will receive an F. The grades of those whose point total falls between 50% and 93% of the possible 350 points will receive a grade between a D and an A-, the grade being based on the distribution of the per cent of total points earned among the students who fall in this range of points.

Office Hours: Dr. Echternacht has no regular schedule of office hours but will be happy to meet with you any time that is mutually agreeable. Contact him in class or at echterna@utk.edu to set up a meeting. Likewise, office hours with Todd Pierson can be scheduled by emailing him at tpierso1@vols.utk.edu.

Disability Statement: If you need course adaptations or accommodations because of a documented disability, or if you have emergency information to share, please contact the Office of Disability Services. This will ensure that you are properly registered for services. Campus location: 100 Dunford Hall. Phone: 865-974-6087, Fax 865-974-9552, VP 622-6566, E-mail: ods@utk.edu Website: <http://ods.utk.edu>

Academic Integrity: Your continued participation in this class assumes that you abide by the University of Tennessee Honor Code (Undergraduate Catalog 2015-2016): "An essential feature of the University of Tennessee, Knoxville, is a commitment to maintaining an atmosphere of intellectual integrity and academic honesty. As a student of the University, I pledge that I will neither knowingly give nor receive any inappropriate assistance in academic work, thus affirming my own personal; commitment to honor and integrity."
