FW&E 306 Terrestrial Vertebrate Ecology 2015

Lecture: MWF 8:50 am Room 184 Russell Labs
Lab: Friday. **Section 1:** 1:00 – 3:00 pm **Section 2:** 3:00 – 5:00 pm.
Room A228 Russell Labs OR Zoology Museum (4th floor Noland Hall)

Website: FWE 306, accessed from Learn@UW

Instructor: Professor A. Pidgeon
A143 Russell Labs
apidgeon@wisc.edu
Teaching Assistant: Max Henschell, PhD candidate
206 Stock Pavillion
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Office hours: Because office hours always seem to conflict with someone's schedule, I don't hold them. Please, though, feel free to make an appointment as needed with either myself or Max Henschell. If you have a quick question, you can catch usually catch Prof. Pidgeon after class.

Course Goals:
This course will introduce you to major groups of terrestrial vertebrates of the world. We will focus 85-90% of our time on Wisconsin's terrestrial vertebrates, including identification, range, life history traits and issues contributing to conservation concern.

As an outcome of the course you will be able to give a common name example and basic life history information associated with that example for each major order of terrestrial vertebrate, and to identify the geographic area where major taxonomic orders reach greatest abundance, and approximately how many extant species are found within each major order. In the course we will compare and contrast key mophological, physiological, and behavioral differences that contribute to broad life history strategies among classes, and that contribute to distinctions among selected finer scale taxa.

For terrestrial species found in Wisconsin, as an outcome of the course you will be able to compare and contrast the body plan, behavioral and physiological adaptations, geographic distribution, and traits contributing to abundance or rarity. Also,

- You will be able to identify and provide scientific name of all mammals, reptiles, and amphibians in Wisconsin, and to identify and provide common name of a subset of birds.
- You will be able to identify, by sound, all Wisconsin anurans (frogs and toads) and a selection of mammals and birds.
- You will learn to identify the majority of Wisconsin mammal species from the skull alone, or from a combination of skull plus skin.
- Your awareness of wildlife around you and current research about wildlife will increase through class activities.
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Study partners

Forming a study group or finding a study partner is a great way to enhance your understanding and retention of course information! I highly encourage it! Also, I suggest that in the first week of classes you meet 3-4 people sitting nearby and exchange email addresses. Then, if you miss lecture, you have someone to contact bout getting notes.

Exams- The lecture and lab material build on and complement each other, and I try to integrate lab and lecture information as much as possible. As you study, you should think about individual species, the characteristics and strategies they share with other species, how to identify them, etc., in a way that unifies information from lab and lecture.

Grading

The course grade is composed of the following components:

Lecture 1 exam	10%
Lab 1 exam	10%
Lecture 2 exam	14%
Lab 2 exam	14%
Take home project	14%
Lecture 3 exam	12%
Lab 3 exam	12%
Other activities	14%

(e.g., discussion forum posts, in-class discussions, assignments, field trip attendance)

Grading Scale:

A $\geq$ 92%
AB $\geq$ 88%
B $\geq$ 81 %
BC $\geq$ 76%
C $\geq$ 69 %
D $\geq$ 55 %
F $\leq$ 55%

Text books. You are taking this course because you are interested in wildlife. Now is the time to start building your field guide and natural history library, if you haven't already started. Field guides should travel with you on outings far beyond the scope of this course. You will use them your entire life, whether you become a professional wildlife ecologist or not. These books (or the equivalent apps) are required:

1- **Sibley's Birding Basics**.
2- **A field guide to birds**. There are many good ones from which to choose! Some examples of good guides include those by Sibley (Field Guide to Birds Eastern North America OR Guide to Birds), Kaufman, and National Geographic. Crossley ID guide also looks good, although I have not yet personally reviewed it. Several of these guides are available in different versions-1) for North America, 2) for Eastern N.A., and for Western N.A. The Western Guide is NOT suitable for Wisconsin, but the other two are. WARNING- Pocket sized guides (those shorter than about 8 inches tall) **are not sufficiently detailed.**
3- **Mammals of the Great Lakes Region**, by Allen Kurta. U of Michigan Press. 1995. This book is a little bigger than the field guides that are out there, but the additional natural history information it provides is worth it.

4 -**Three DNR/Extension** publication on herpetiles- I will make these available later in the semester, when we start the herpetile section, or you can pick them up yourself at the DNR building downtown. (total cost ~$10)

- **Note on Apps**: One advantage of Apps is that they often include sound files, and some include videos, making for a richer experience in one package. Be sure to read the reviews before you buy- there are still a number of issues that users complain of. The Kaufman field guide app is called BirdsEye,. Princeton Field Guide to Mammals is available as an app, and Audubon has an app for Reptiles and amphibians. I am not endorsing any of these, just making you aware of them.

Texts to round out your personal library (all are optional):

- The Sibley Guide to Bird life and Behavior.
- Reptiles of the Great Lakes Region by James Harding
- Peterson Field Guide to Reptiles and Amphibians of Eastern Central North America
- Herpetology 4th edition, by Vitt and Caldwell
-Turtles of the United States and Canada, 2nd edition, by Lenst and Lovich

Pandemic Influenza – how we will cope with illness.

If you are absent due to illness for three or more consecutive class sessions, you should email both the Forest and Wildlife Department secretary, Ms. Laurie Ballentine (lsballen@wisc.edu) and Dr. Pidgeon (apidgeon@wisc.edu).

Religious conflict and Special needs - if you have a religious conflict please notify me in writing (email is fine) as soon as possible.
If you have special needs, with regard to how content is provided, or testing situations, also let me know as soon as possible so that I can work to accommodate you as best I can.

Academic misconduct

Academic honesty requires that the course work a student presents to an instructor honestly and accurately indicates the student's own academic efforts. Where this may be an issue in this class is during tests, including the take home test.

To help avoid the appearance of 'cheating,' I ask that you follow these rules.
1) During lecture tests I require that you sit every other seat, and sit directly behind the person in the row ahead of you. I will also ask that your leave your backpack and other belongings outside of the row of chairs, along the side of the room (there is a big coatrack and shelf available).
2) During lab exams, please "be obvious" in keeping your eyes on your own paper or the specimen at your station, and "be obvious" in covering or turning over your paper when you are not writing on it.
3) For the take home project, you may discuss and share ideas with classmates, but the answers you write must be created by you alone.

Violations of standards of academic honesty will not be tolerated. Punishment may include a lowering of the grade, no credit for dishonest work, expulsion from the course, a notation on your academic record, and others, deemed appropriate by the instructor or deans. PLEASE NOTE THAT AS PER UNIVERSITY POLICY, ALMOST ANY PENALTY MUST BE ACCOMPANIED BY A LETTER, WHICH WILL BE DEPOSITED IN YOUR STUDENT FILE.
For more information, please see: http://www.students.wisc.edu/doso/academic-integrity/

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Day	Date	Topic - Lecture and Lab	Weekly Readings/assignments
			-some of these are on Learn@UW course website- these are designated with L@UW. Some are in your required texts. Readings listed in blue are optional (but helpful) -
W	Jan 21	Intro to course, goals, taxonomy review, species diversity	-Read Wildlife Observation assignment (L@UW Discussion forum)
F	Jan 23	Lecture: Birds- The form of birds Lab: 1. Intro to specimens, appropriate handling and conduct. 2. Identifying bird characteristics by order, visual and aural i.d. of selected species.	- Sibleys Birding Basics (SBB) Ch 8 L@UW - SBB Ch 2-3, 10-11 -Review Taxonomy document (L@UW) Lab: two documents on L@UW Bring bird field guide to lab
M	Jan 26	Lecture: Birds: The annual cycle and Living orders of birds I (Struthioniformes to Falconiformes)	Introduction assignment due (see dropbox L@UW) -Read Heinrich Winter World exerpt (L@UW) -Read Bird Behavior (L@UW) -SBB Ch 4 pages 45-51 -SBB Ch 5-6 Podcasts: Ducks Geese Swans; Raptors Owls, Woodpeckers, Hummingbirds, Thrushes, Warblers, Finches http://www.hmhbooks.com/peterson/podcast-family.shtml Read Barred Owl Dilemma Flying in V formation Whooping Crane reintroduction website questions Bring bird field guide to lab
W	Jan 28	Lecture: Birds II (Gruiformes to Piciformes)	
F	Jan 30	Lecture: Birds III (Passeriformes) Lab : identifying bird characteristics by order, visual and aural i.d. of selected species.	

M	Feb 2	Living orders of birds IV (Passeriformes, continued).	- SBB Ch 7 - SBB Ch13 pages 123-5 & figures on pages 129-33 (cont) & pages 135-138 - SBB Ch 14-15 -
W	Feb 4	Birds wrap up.	
F	Feb 6	**Lecture: Exam I Birds** **Lab: Practical Exam 1 Birds** (take during the lab section for which you are registered)	
M	Feb 9	The Form of Mammals	What is a Mammal L@UW Lagomorphs L@UW
W	Feb 11	Monotremes and Marsupials, Eutherian Orders	-Monotremes and Marsupials Learn@UW -
F	Feb 13	Lecture: Eutherian Orders (including Soricimorpha) Lab: A228 Topic: Introduction to mammal skulls and skeletons	- Lagomorphs L@UW - Bats L@UW Insectivores L@UW
M	Feb 16	Chiroptera (Bats)	
W	Feb 18	Chiroptera and Lagomorpha	
F	Feb 20	Lecture: Insectivores I/Lagomorphs Lab: Zoology Museum Topic: Marsupials/Lagomorphs/Bats/ Soricomorpha	Lab: Handouts L@UW Bring Mammals of Great Lakes Region to lab
M	Feb 23	Rodents	-Rodents L@UW -Mouse-like Rodents L@UW
W	Feb 25	Rodents	
F	Feb 27	Lecture: Rodents Lab: Zoology Museum Topic: Rodents	Assigned paper on rodent speciation Lab: Handouts L@UW
M	Mar 2	Rodents//speciation	Rodent Assignment due: Bring answered questions to class
W	Mar 4	Carnivores	-Carnivores L@UW

F	Mar 6	Lecture: Carnivores Lab: Zoology Museum Topic: Carnivores/Artiodactyls	Lab: Handouts L@UW
M	Mar 9	Carnivores	
W	Mar 11	Carnivores	- Primitive Ungulates L@UW -Hoofed Mammals L@UW
F	Mar 13	Lecture: Ungulates - Lab: Topic: Review of all Orders of Mammals Noland Hall	Elk Winter Feeding L@UW -Even-toed Ungulates L@UW
M	Mar 16	Review of Mammals	
W	Mar 18	Lecture Exam 2 Mammals	
F	Mar 20	**Lecture: No Class** **Lab: Practical exam II- Mammals**	
M	Mar 23	Lecture: Intro to Amphibians	For this section, need three WiDNR booklets –Turtles and Lizards of WI, Snakes of WI, and Amphibians of WI. -Reptiles L@UW
W	Mar25	Salamanders and Caecilians	For this section, need three WiDNR booklets –Turtles and Lizards of WI, Snakes of WI, and Amphibians of WI.
F	Mar 27	Frogs and Toads	-Amphibians L@UW -Turtles, tortoises L@UW
		SPRING BREAK Mar 28-April 5	
M	Apr6	Frogs and Toads	-Turtles and Lizards of WI (book;let) -Lizards L@UW
W	Apr 8	Frogs and Toads Snakes	-Frogs L@UW
F	Apr 10	Emerging diseases in Amphibians	Snakes of Wisconsin (booklet)

		Lab: Amphibians	Bring Amphibian booklet to lab
M	Apr 13	Intro to Reptiles	
W	Apr 15	Lepidosaurs Lizards/Snakes	-Snakes L@UW
F	Apr 17	Lecture: Snakes Lab: Reptiles I-snakes, lizards, crocodilians	Snakes of Wisconsin (booklet) - Bring to lab two booklets: Snakes of Wisconsin and Turtles and Lizards of WI
M	Apr 21	Thamnophis	
W	Apr 23	Turtles	-Turtles, tortoises L@UW
F	Apr 25	Turtles Lab: Reptiles II Turtles	Bring Turtle booklet to
Sat or Sun	Apr 26 or 27	REQUIRED FIELD TRIP 8 am- -4 pm	
M	Apr 28	Herp Conservation case studies-	-
W	Apr 30	Herp Conservation case studies	**TAKE HOME EXERCISE DUE**
F	May 2	 Lab: Review all Herps	
Sat or Sun	May 3 or 4	Back-up date for FIELD TRIP 8 am – 4 pm	
M	May 5	Herp wrap up	
W	May 7	Herp review/	
F	May 9	Lecture: no class **Lab: Practical exam 3: Reptiles and amphibians**	
Tues	May 13	**FINAL: Lecture Exam 3 Herpetiles**	10:05- 12:05