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BIOO 475.01: Mammalogy Lab

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Lab Syllabus

Teaching assistants

Connor Meyer

connor.meyer@umconnect.umt.edu

Sections: [01] Fri 8:00-9:50, [03] Fri 1:00-2:50

Office hours (HS 212): Tues 2:00-4:00

Cynthia Ulbing

cynthia.ulbing@umontana.edu

Sections: [02] Fri 10:00-11:50, [04] Fri 3:00-4:50

Office hours (HS 212): Weds 2:00-4:00

Lab coordinator

Dr. Angela Hornsby

angela.hornsby@mso.umt.edu

Lab description

The lab will focus on taxonomy, anatomy, identification, behavior, habitats, and ecological interactions of mammals, with heavy focus on mammals of western Montana.

Recommended readings & resources

1. Roland Kays & Don Wilson, *Mammals of North America* 2nd Ed (2009)
2. Kerry Foresman, *Revised Key to the Mammals of Montana* (2012)
3. Mark Elbroch, *Animal Skulls: A Guide to North American Species* (2006)
4. Mammal Tracks and Sign, <http://www.naturetracking.com/mammal-tracks>
5. Mammal Tree of Life, <http://vertlife.org/data/mammals/>
6. Montana Field Guide, <http://fieldguide.mt.gov/>
7. Animal Diversity Web (basic), <https://animaldiversity.org/accounts/Mammalia/>
8. Mammalian Species accounts (in depth), <https://academic.oup.com/mspecies>

Learning outcomes

1. Develop a working vocabulary of mammalian parts and taxonomy
2. Become proficient at identifying mammals using dichotomous keys and other guides
3. Identify western Montana mammals based on internal and external features
4. Practice using your knowledge in written field and research reports

Assignments

There are several analytical and writing assignments for the labs. All assignments should be submitted on Moodle by 5 PM on the due date. Points for late assignments will be docked 50%.

Field trips

We are offering four organized Saturday field trips, of which you are required to attend at least one in order to write your field report. Consider the dates and locations, and PLAN AHEAD. Details will be announced in lab.

Quizzes & practical

Quizzes will be brief and cover key content from the previous week's lab. There will be 11 quizzes, and your lowest quiz score will be dropped. The final will be cumulative. In both cases, refer to the lab handouts to understand the knowledge or skills you will be assessed on.

Missed labs

The labs account for half of your total course grade and are difficult to make up, so you should make every effort to attend and use the time well. Lab presentations, handouts, and assignments will be posted on Moodle. Between those sources, you will be able to see the learning goals for each lab and work with your TA to determine the best way to make up any missed labs. This should be done ASAP. In some cases this will mean attending your TA's office hours to see the specimens, in other cases it will mean completing an activity on your own time.

Covid restrictions

- Mask use is required within the laboratory.
- If you feel sick and/or are exhibiting COVID-19 symptoms, please don't come to class and contact the Curry Health Center at (406) 243-4330.
- If you are required to isolate or quarantine, talk to your TA to make arrangements ASAP.
- UM recommends students get the COVID-19 vaccine. Please direct your questions or concerns about vaccines to Curry Health Center.
- Where social distancing (maintaining consistent 6 feet between individuals) is not possible, specific seating arrangements will be used to support contact tracing efforts.
- Class attendance will be recorded to support contact tracing efforts.
- Drinking liquids and eating food is discouraged within the classroom.
- Mask use is required in vehicles when traveling to field sites as part of class/fieldwork.

Disability and accessibility

The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and the Office for Disability Equity (ODE). If you anticipate or experience barriers based on disability, please contact the ODE at: (406) 243-2243, ode@umontana.edu, or visit www.umt.edu/disability for more information. Retroactive accommodation requests will not be honored, so please do not delay. As your instructor, I will work with you and the ODE to implement an effective accommodation, and you are welcome to contact me privately if you wish.

Student Conduct Code

Please read and familiarize yourself with the *Student Conduct Code* (<http://www.umt.edu/student-affairs/community-standards/default.php>). In particular, note that we have *zero tolerance for plagiarism*. Your assignments may be run through DupliChecker anti-plagiarism software. As a rule-of-thumb, avoid using more than 3 words in a row that are the same as another source.

Let me say it again: *zero tolerance for plagiarism*.

Points

- 100 – 10 points for each of 11 quizzes (lowest quiz dropped)
- 15 – Squirrel-Net report draft
- 30 – Squirrel-Net report final
- 30 – Field report
- 15 – Owl pellet report
- 15 – Convergent Evolution paper draft
- 15 – Convergent Evolution paper peer review
- 30 – Convergent Evolution paper final
- 50 – Practical (lab final)
- 300 – TOTAL

Schedule

Week			Topic	Quiz	Due	Field Trip
1	Sep	3	Skeleton, skull, teeth			
2		10	Hair, tracks, scat, and sign Intro to field reports	Q1		
3		17	Mammal Orders Intro to Squirrel-Net	Q2		Lolo Pass (Sat Sep 18)
4		24	Squirrel-Net data collection	Q3		Lee Metcalf / Bass Creek Trail (Sat Sep 25)
5	Oct	1	Didelphimorphia, Eulipotyphyla, Chiroptera	Q4	Squirrel draft	National Bison Range (Sat Oct 2)
6		8	Carnivora	Q5		
7		15	Cetartiodactyla, Perissodactyla, Lagomorpha	Q6	Squirrel final	Fort Missoula (Sat Oct 16)
8		22	Rodentia	Q7	Field report	
9		29	Owl pellet analysis	Q8		
10	Nov	5	Convergent Evolution (CE) analysis	Q9	Owl pellet report	
11		12	Specimen preparation	Q10	CE draft	
12		19	Parasites, diseases, and internal anatomy	Q11	CE peer review	
		26	NO LAB - THANKSGIVING BREAK			
13	Dec	3	Review for practical		CE final	
14		10	PRACTICAL (LAB FINAL)			