

Syllabus: Biology of Mammals, Spring 2012

Geoffrey Hammerson (ghammerson@wesleyan.edu)

03/16/2012 (Friday) - 03/20/2012 (Tuesday); 09:00 AM - 05:00 PM

Texts:

- Whitaker, J. O., Jr., and W. J. Hamilton, Jr. 1998. Mammals of the eastern United States. Cornell University Press, Ithaca. Hardcover. ISBN-10: 0801434750, ISBN-13: 978-0801434754
- Elbroch, M. 2003. Mammal Tracks & Sign: A Guide to North American Species [Paperback]. Stackpole Books. ISBN-10: 0811726266, ISBN-13: 978-0811726269
- Elbroch, M. 2006. Animal Skulls: A Guide to North American Species [Paperback]. Stackpole Books. ISBN-10: 0811733092, ISBN-13: 978-0811733090

Readings: Before the first class, please read pages 1-20 in Whitaker and Hamilton, 1-79 in Mammal Tracks & Sign, and pages 1-106 in Animal Skulls. During or shortly after our 5-day immersion period, please read in the texts the sections that cover the mammals we observed or otherwise detected in the field or studied in the classroom. Classroom presentation materials will be posted as pdf files that you can view/download from Moodle (available through your portfolio).

Important information for the first class meeting: Please meet in the classroom on Friday at 9:00 am. After a short briefing, we will depart for a field trip, so please wear appropriate clothing (for possibly cold/wet conditions) and boots suitable for snow/mud. Also, bring binoculars, a small notebook, pen/pencil; tape measure; snacks; water; and camera (optional). After the field trip we will return to campus and convene in the classroom for lecture, discussions, and study of mammal specimens. We will do a field trip each morning (or possibly in the afternoon, depending on weather conditions).

Discussions of the groups of mammals mentioned in the following schedule encompass selected aspects of reproduction, physiology, behavior, ecology, and conservation. Additionally, we learn to identify species based on external features, skull/tooth characteristics, and tracks and other signs. This course does not cover marine mammals, which are the subject of a separate GLSP course.

Topics for classroom sessions:

March 16: Introduction. Mammal diversity. Evolution. Basic anatomy and physiology.

March 17: Marsupials (opossum). Insectivores (moles, and shrews). Chiroptera (bats).

March 18: Lagomorphs (rabbits). Rodents (squirrels, beaver, rats, mice, porcupines).

March 19: Carnivores. Canids (coyote, foxes). Ursids (bears). Procyonids (raccoons).

March 20: Carnivores, continued. Mustelids (weasels, etc.). Mephitids (skunks). Felids (cats). Ungulates (deer, moose).

Requirements:

- Take-home short answer exam (50% of grade). Based on lecture material and readings. Due April 23.
- Written report of individual project (15%). Project is flexible; could be a field study or a written review of some aspect of mammal biology or conservation; topic must be pre-approved by the instructor. Due: April 16.
- Field Trip Reports (5) (each worth 5% of final grade). See guidelines for Field Trip Reports to be posted on Moodle. Due two weeks after the field trip (i.e., March 30 – April 3).
- Mammal identification exam (10%). Based on photos of mammals, tracks/signs, skulls. To be posted on Moodle. Due: April 23.