MAMMAL DIVERSITY

EFB 483: Spring, 2013 - Lectures in Baker 145, TuTh 12:30 – 1:50 PM
Professor Mark V. Lomolino – Room 240 Illick Hall, island@esf.edu
Office Hours: Tu & Th – 10 to 12:15 am

Note: Laboratory Exercises do not begin until the week of January 21-25, 2013.
*** Students in Monday Labs on MLK Day – Jan. 21, attend lab later in the week.

Other Lab Notes:
- Read Chapter 1 and pages 53, 61-67 in Lab Manual before first lab meeting. ****
- Buy a composition notebook for labs and bring it to the first meeting. ***
- Relevant materials will be posted on our web site http://www.esf.edu/efb/lomolino/Courses/MammalDiversity/

Course Description:
Goals: Through a series of lectures, laboratory exercises and interactive discussion, we will develop a thorough understanding of the origins and evolutionary radiations of mammals, their global and local (NYS) diversity, the principal characteristics of mammals, their ecological, morphological and physiological adaptations, patterns in their distributions and endangerment, and principal threats and promising solutions for conservation of extant species.

Books: The following books are required for this course.

Optional References for Lecture:
- Mammalogy: adaptation, diversity and ecology – (by Feldhamer et al., 2007).
- Mammalogy, 5th edition. (by Vaughan et al., 2010)

Grading: The Lecture portion of the course is worth 3/4 (75%) of your course grade, and will be apportioned as follows:

Lecture Exams – are cumulative, short answer and essay format based on information presented in lectures, unless otherwise noted:
- EXAM ONE is worth 25% of your lecture grade.
- EXAM TWO is worth 35% of your lecture grade.
- EXAM THREE is worth 40% of your lecture grade.
**Schedule of Lectures:**

**Starting Date** | **Topics** (relevant pages in Feldhammer et al. in parentheses)
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1/15 | Introduction: Requiem for the Ghosts of Mammals Past (read pages: 1-21)
1/17 | Mammal Origins: Earth History and Plate Tectonics; (48-61)
1/22 | Mesozoic Mammals: In the Shadows of Dinosaurs
1/24 | From the Shadows to Center Stage (Mesozoic-Cenozoic)
1/29 | Cenozoic: The Age of Mammals
1/31 | Pleistocene to Recent Mammals
2/5 | Overview of Modern Mammals (61-66; 213-217; Chapters 11-20 have information on each of the extant orders of mammals)

**February 7** EXAM ONE (25% of lecture grade)

2/12 | Evolution and Adaptation I: Flight (Chapters 6 and 13)
2/14 | Evolution and Adaptation II: High Elevation (Chapter 9)
2/19 | Evolution and Adaptation III: Diving Mammals (Chapters 6, 9 and 17; 378-382)
2/21 | Evolution and Adaptation IV: Fossorial Mammals (Chapters 9 and 18)
2/26 | Evolution and Adaptation V: Cold and Winter Ecology (158-176)
2/28 | Evolution and Adaptation VI: Heat (deserts) (176-190)
3/4 | Evolution and Adaptation VII: Islands (Chapter 26)

3/10 – 3/17 “SPRING” BREAK ☀️ ☀️ ☀️ ☀️ ☀️

3/19 | Evolution and Adaptation VII: Islands, continued

**March 21** EXAM 2 (35% of lecture grade)

3/26 | Feeding and Trophic Strategies: (118-142)
4/2 | Biogeography, Ecology and Diversity of Mammals: (Chapts. 5, 26)
4/4 | Conservation I: Status, Threats and Range Collapse: (Chapter 29)
4/9 | Conservation II: Case Studies – Fragmentation, Prairie Dogs
4/16 | Conservation III: Biogeography of Humans – Threats Case Studies
4/23 | Conservation IV: Winter & Climate Change
4/30 | Conservation V: Parable of the Woolly Mammoth: (Chapter 29)

**FINAL - CUMULATIVE (40% of lecture grade)** TBA FINALS WEEK