Saturday, April 16

- Possible field trip (to be arranged)

Sunday, April 17

- Field trip. Readings: pp. 32-33.

Monday, April 18

- Course overview and requirements.
- Introduction to marine mammals. Diversity, evolution, distribution, morphology.
- Readings: pp. 8-16, 34-37, 49-57, 180-189, 238-239, 248-253, 299-301, 316-317, 326-331, 452-455, 474-477, 499-517

Tuesday, April 19

- Staying warm and hydrated in a cold, salty environment: thermoregulation and osmoregulation.
- Life under water: diving physiology and behavior.
- Readings: pp. 19-22

Wednesday, April 20: possible field trip

- Sensory biology: using sound in feeding and communication; vision in water and air.
- Readings: pp. 18-19

Thursday, April 21

- Feeding ecology. Reproduction, life history, social behavior: cetaceans and pinnipeds.
- Readings: pp. 17-18, 23-28, 86-97, 110-130, 138-149, 154-157, 162-165, 190-193, 198-201, 204-215, 222-237, 240-247, 318-325, 358-361, 370-383, 388-391, 395-405, 418-425, 433-447, 460-463, 470-473

Friday, April 22

- Reproduction, life history, social behavior: otters, polar bear, sirenians. Conservation of marine mammals.
- Identification Exam
- Readings: pp. 29-31, 38-45, 482-485

Course Requirements:

- Marine mammal identification exam (slides of species from North American coastal waters): 10% of grade.
- Field trip reports (2): each 10% of grade (see following guidelines). Due 2 weeks after the trip.
- Aquarium study questions: observable characteristics of captive marine mammals. Visit the Mystic Aquarium on your own (bring binoculars) and answer the study questions (to be provided). 10% of grade. Due May 15.
- Take-home short-answer exam (based on lectures and readings): 40% of grade. Due May 15
- Individual project. Flexible topic and format; must significantly enhance your knowledge of marine mammals. Examples: *short research paper* (about 8 double-spaced pages) on a specific topic, using recent primary literature (3-5 journal articles); detailed *review of a recent book* that focuses on a particular marine mammal species or a narrow aspect of marine mammal biology or conservation (about 8 double-spaced pages); *artwork* illustrating one or more aspects of marine mammal biology; simple *observational study of captive marine mammals* at an aquarium of your choice. 20% of grade. Due May 15.

Text: Reeves, R. R., et al. 2002. National Audubon Society guide to marine mammals of the world. Alfred A. Knopf, New York. ISBN-10: 0375411410 ISBN-13: 978-0375411410

Note: Students must cover the cost of the tickets required for the field trips (~$30-40 per sperson)

Field trip reports must include the following information:

- Name of observation area (e.g., Plymouth to Stellwagen Bank, Massachusetts)
- Your name
- Date (e.g., 23 April 2006); time of departure and return to dock
- Size and type of boat; route and specific sites visited; weather, sea, and tide conditions
- Species observations, including for each marine mammal species: counts of the number of individuals observed at each location; size/age classes observed; variations in external appearance (e.g., color pattern, prominent scars); details of behavior on land (seals) and in water (e.g., postures, spacing, locomotion, interactions, responses to boat, etc.). This is the most important part of the report.