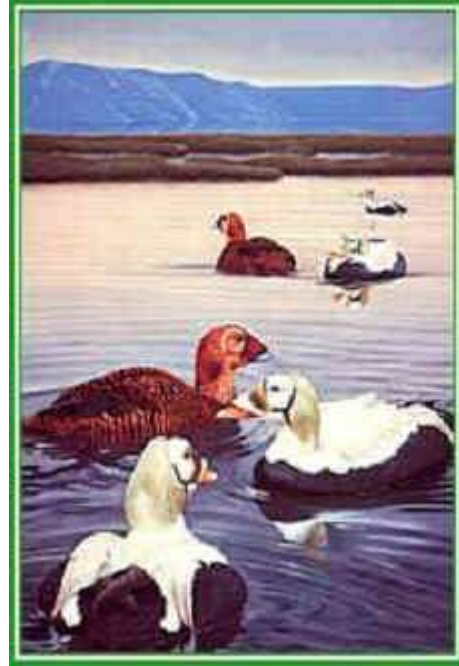
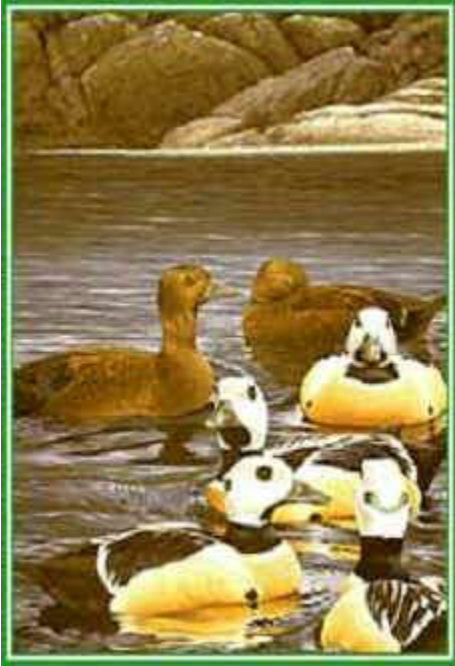


Conservation Biology (Biology 45300)

An Ecology Course for the Fall of 2007 with RF Rockwell



[Biology 45300 - Conservation Biology](#)

This undergraduate course provides an introduction to conservation biology with an emphasis on the interplay of various fields of biology in the management and conservation of species and their habitat.

We will use RB Primack. *A Primer of Conservation Biology*, Third Edition (Sinauer) as the primary text.

The class meets on Thursdays from 9:15 AM to 12 noon in room 822 of the Marshak Building at City College.

Both Steller's and Spectacled eiders are threatened species of ducks living in Alaska and Siberia. Their population sizes have declined precipitously over the past 10 years. The reasons have to do with basic demography, environmental contamination and global warming. Our attempts to reverse the declines rely on quantitative models of their population and community biology as well as models of ecosystem processes. These models build on information covered

in our core undergraduate population and community biology course and form a natural follow-up for those interested in how basic ecology can be applied to conservation and wildlife management issues.

In Conservation Biology, we will examine how simple models coupled with natural history can be applied to complex, real-world situations. We will explore demography, population dynamics (including epidemics), community dynamics (including herbivory, predation, and competition) and ecosystem functioning (including nutrient cycling and energy flow). We will draw on real world studies and problems involving various animal and plant species that are in some sort of trouble. We will also explore how hard science often has to be softened to reach conservation goals acceptable to a diverse society.

The course meets on Thursday from 9:15AM to noon in Marshak 822.

The Text for the course is: Primack, RB. 2004. A Primer of Conservation Biology, Third Edition, Sinauer, Sunderland. **ISBN:** 0-87893-728-5.

date	topic	reading
08/30	introduction	
09/06	review of population growth models	
09/13	no class	
09/20	biodiversity and value	pages 1-60
09/27	threats to biological diversity	pages 61-119
10/04	special lecture	
10/11	conservation of populations and species	pages 121-179
10/18	conservation of populations and species	pages 121-179
10/25	conserving biological communities	pages 183-235
11/01	conserving biological communities	pages 183-235
11/08	student presentation	
11/15	student presentations	
11/20	student presentations TUESDAY	
11/29	student presentations and a review for the exam	
12/06	final exam	

readings are from Primack, RB. 2004. A Primer of Conservation Biology, Third Edition.

Endangered and Threatened Species Presentations

presenter	topic	date
blessy benjamin	to be announced	11/08/07
prince bonsu	andean cat	11/08/07
desmond fonji	tasmanian devil	11/08/07
aleena joseph	aye-aye	11/08/07
shayna sanguinetti	snow leopard	11/08/07
dannykay wilson	cougar	11/08/07
konate zana	yellow-breasted capuchin	11/08/07
lauren bucheim	sperm whale	11/15/07
valeria espinoza	marine turtles	11/15/07
antonia florio	jaguar	11/15/07
renee porfido	virginia big-eared bat	11/15/07
leinny rivas	gray wolf	11/15/07
agnes sisa	giant kangaroo rat	11/15/07
marlon ulloa	begal tiger	11/15/07
margaret apiagyei	pink pigeon	11/20/07
vadim frolov	borneo orangutan	11/20/07
dial ganpat	african elephant	11/20/07
yalisa infante	tiny hawk	11/20/07
sherlie jean-gilles	white-tailed eagle	11/20/07
monia ojofeitimi	common hippopotamus	11/20/07
sandra pirela	gray reef shark	11/20/07
monsur ali	cheetah	11/29/07
kalsoom kahn	<i>Telestes polylepis</i>	11/29/07
lisura moreno	chimpanzee	11/29/07
yousef nakeeb	sawfish	11/29/07
frances walden	angel shark	11/29/07

Presentations will be given over a 4 week period including Tuesday (11/20) that has a Thursday schedule. On a given day, order of presentation will be determined by random draw.

Your grade in the course will be based on a final exam (50%) and your oral (25%) and written (25%) presentation of your endangered species or habitat project.

Student presentations will begin 11/15 and the names will be listed above. On a given date, order of presentation will be by draw of a card. Remember you have 15 only minutes for your presentation followed by 5-10 minutes of questions and discussion.

Your written report (no more than 5 pages, double spaced and at least 10 pitch) are due 12/06/07.

Endangered Species Project Topics

For your endangered species, you must consider the following:

1. Basic biology of the species that is relevant to its being endangered.
2. Historic population size and distribution
3. Current population size and distribution
4. What are the primary causes of the change in population size and distribution?
5. What actions are being taken to "help" the species? (e.g. what are the recommendations in the endangered specie's management plan?)
6. Do you think these are the appropriate actions? Why?
7. What would you do to "help" the species?

Best starting point for your project is the [red list of endangered species](#)