

**Conservation Biology**  
ECOL 3530, Fall Semester 2008  
Course Syllabus

Instructors:

*Dr. C. Ronald Carroll* – rcarroll@uga.edu; 706-338-1366  
*Dr. Daniel McGarvey* – mcgar002@gmail.com; 706-355-8335

**Course description:**

This course is an introduction to conservation biology. We will cover the foundational principles of conservation biology and use case studies to illustrate these principles in practice. In general, our objective is not for you to memorize an extensive list of names, dates, or equations; rather, our goal is for you to gain a functional understanding of key concepts, examples, case studies, patterns, and processes in conservation biology.

The final lectures will focus on some major, emerging issues in conservation science. The two lecture periods (Tuesday and Thursday 9:30-10:45 am) account for 3 credit hours. You have also signed up for one of two Wednesday periods that we will use as optional time to explore topics in depth, to meet with students who wish to discuss aspects of the course, such as the term paper project, or to explore career opportunities in conservation biology. Lecture slides will be posted on the course web site (<http://www.rivercenter.uga.edu/education/3530/fall08.htm>).

**Course textbook:**

*A Primer of Conservation Biology*, 4<sup>th</sup> edition 2008, by Richard B. Primack.

**Course grading scheme:**

Grades will be based a mid-term exam (25%) a comprehensive final exam (30%), a term paper project (30%), and a series of unannounced short quizzes (15%). The mid-term (Thursday, Oct 2) and final exam (Tuesday, Dec 16) dates are not flexible; you are responsible for adjusting your schedule accordingly. Your term paper will be a critical analysis of a current issue in conservation, such as a pending action under the Endangered Species Act or the National Environmental Policy Act. Further instruction on the term paper will be given out in the first couple weeks of class.

You are responsible for all information presented in class, what is posted on the course web site, and chapter readings assigned in your textbook. Note: be sure to read ahead in your textbook. Don't get behind! For each chapter, first read the summary at the end and then read the chapter to flesh out the summary points. Think about the discussion questions both as you read, and before coming to class (hint!).

## **Daily schedule:**

### **Week of Aug 18**

Tuesday: Course introduction & a brief history of conservation science [McGarvey]

Thursday: Paradigms of conservation – traditional schools of thought [Carroll]

### **Week of Aug 25**

Tuesday: Paradigms of conservation (cont) – emerging concepts [Carroll]

Thursday: Ethics of conservation & the “Tragedy of the Commons” [McGarvey]

### **Week of Sept 1**

Tuesday: Conservation law & term paper assignment [McGarvey]

Thursday: Conservation law (cont) – Etowah Habitat Conservation Plan [*guest lecture by Dr. Tim Carter*]

### **Week of Sept 8**

Tuesday: Biodiversity – what is it & how is it measured? [McGarvey]

Thursday: Biodiversity (cont) – where does it occur & what causes it to vary? [McGarvey]

### **Week of Sept 15**

Tuesday: Populations & landscape-scale considerations [McGarvey]

Thursday: Conservation genetics [Carroll]

### **Week of Sept 22**

Tuesday: Ecosystem approaches & management [Carroll]

Thursday: Applying what we’ve learned so far – the conservation of orchids [*guest lecture by Dr. Dorset Trapnell*]

### **Week of Sept 29**

Tuesday: Discuss term papers & mid-term review [McGarvey]

Thursday: **Mid-term exam**

### **Week of Oct 6**

Tuesday: Discuss mid-term & begin lesson on invasive species [McGarvey]

Thursday: Invasive species (cont) [McGarvey]

### **Week of Oct 13**

Tuesday: Habitat degradation & fragmentation [McGarvey]

Thursday: Biological reserves & protected areas [McGarvey]

**Week of Oct 20**

Tuesday: Over exploitation [Carroll]

Thursday: *\*\*Fall break – no class*

**Week of Oct 27**

Tuesday: Restoration ecology [McGarvey]

Thursday: Economics of conservation & sustainable development [McGarvey]

**Week of Nov 3**

Tuesday: Ecotourism – gentle exploitation? [Carroll]

Thursday: Monarch butterflies – trans-boundary conservation [*guest lecture by Dr. Sonia Altizer*]

**Week of Nov 10**

Tuesday: Disease ecology & conservation medicine [Carroll]

Thursday: Shade-grown coffee – risk of disease transmission? [*guest lecture by Sonia Hernandez-Divers*]

**Week of Nov 17**

Tuesday: Climate change [Carroll]

Thursday: Climate change (cont) [Carroll]

**Week of Nov 24**

Tuesday: *\*\*Thanksgiving break – no class*

Thursday: *\*\*Thanksgiving break – no class*

**Week of Dec 1**

Tuesday: Choco-Andes Corridor Project – “improving livelihoods & protecting biodiversity” [Carroll]

Thursday: Emerging roles for conservation scientists [Carroll & McGarvey]

**Final exam: Tuesday, 16 December, 8-11 am**