ENVIRONMENTAL STUDIES 12
THE RESILIENT (?) EARTH
Professors Crowley and Dizard
Spring, 2009

The following books, or portions thereof, will be required. Copies are available at Amherst Books in the center of town (in order of our considering them):

Stephen Meyer, The End of the Wild
David Raup, Extinction
William Ruddiman, Plows, Plagues & Petroleum
Aldo Leopold, A Sand County Almanac (Ballantine edition)
James G. Speth, The Bridge to the End of the World

In addition to these books, you will need to purchase a packet of readings that will be available in 102 Morgan Hall, the American Studies Office, which will be open from 9-12 and 1-4. Amherst students can simply sign the sheet that will bill to their account. Five College students will have to pay with cash or check (made out to “The Trustees of Amherst College.”

Professor Crowley’s office is 310 Earth Sciences. His office hours are: Tuesday 12-2 and Wednesday 11-1. To make an appointment at some other time, you can email him pdcrowley@amherst.edu or call him—413-542-2715

Professor Dizard’s office is 204 Morgan Hall. His office hours are Monday 9-12 and Thursday 1-3. To make an appointment at some other time, you can email him jedizard@amherst.edu or call him—413-542-2742
COURSE OUTLINE AND SYLLABUS

INTRODUCTION

1/27 Introduction to the course

1/29 David Quammen, “Planet of Weeds” (M)

2/3 A conversation with Bill McKibben

2/5 Meyer, The End of the Wild (Buy)

EXTINCTION & EVOLUTION

2/10 David Raup Extinction, Chaps. 1-5 (Buy)

2/12 Raup Chaps. 6-Epilogue

2/17 The Extinction we all grew up with: K-T

Read: Alverez, et al., “Extraterrestrial Cause for the Cretaceous-Tertiary Extinction” (M)

DiGregoria, “Doubts on Dinosaurs” (M)

Ward, “Impact from the Deep” (M)

Wilford, “Rethinking What Caused the Last Mass Extinction” (M)

2/19 Lecture: George Greenstein

Read: Gregg Easterbrook, “The Sky Is Falling” (M)

FIRST PAPER DUE

2/24 Starting Over

Read: David Quammen, “The Darwin Bicentennial: Part One” (M)

Matt Ridley, “Modern Darwins” (M)

Niles Eldredge and Stephen Jay Gould,” Punctuated Equilibria” (M)

ENTER HUMANS

2/26 Pleistocene Overkill

Read: Paul Martin and David Steadman, “Prehistoric Extinctions on Islands and Continents” (M)

3/3 The Beat Went On

Read: Charles E. Kay, “Are Ecosystems Structured from the Top-Down or Bottom-Up?” (M)

Andrew Isenberg, “The Nomadic Experience” (M)

3/5 And then came agriculture

Read: Jared Diamond, selection from Guns, Germs, and Steel (M)

3/10 Human disease

Read: Ruddiman, Chaps. 12-14 (Buy)
3/12 Crops and Climate

Read: Ruddiman, Chaps. 7-11 (Buy)

SPRING BREAK

CLIMATE CHANGE

3/24 What’s wrong with this picture?

Read: Ruddiman, Chaps 2-6

3/26 “Humans in Control”

Read: Ruddiman, Chaps. 15-17

3/31 Are we really in “control”?

Read: James Hansen, et al., “Target Atmospheric CO2”

Richard Linsden, “Is the Global Warming Alarm Founded on Fact?” (TBHO)

SECOND PAPER DUE

BIODIVERSITY

4/2 The Threat to Life

Read: E.O. Wilson, Chaps from the Diversity of Life (M)

4/7 Island Biogeography

Read: Jared Diamond, “The Island Dilemma” (M)

4/9 The problem with species

Read: Martha Rojas, “The Species Problem and Conservation: What are We Saving?”

A. Purvis & A. Hector, “Getting the Measure of Biodiversity” (M)

4/14 Climate Change and Evolution

Read: Camille Parmesan, “Ecological and Evolutionary Responses to Recent Climate Change” (M)

THIRD PAPER DUE

OUR OBLIGATIONS TO NATURE

4/16 A Land Ethic

Read: Aldo Leopold, A Sand County Almanac, pp. 19-25; 72-82; 101-108; 130-145; 181-222 (Buy)

4/21 Yes, but…

Read: Charles Mann and Mark Plummer, “Noah’s Choice” (M)

4/23 Capturing Carbon

Read: W. S. Broecker & Robert Kunzig, Fixing Climate, Chaps. 13-16

R. Socolow & S Pacala, “A Plan to Keep Carbon in Check” (M)
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| 4/28 | The System is Broken  
Read: J. G. Speth, *The Bridge to the Edge of the World, Part One* (Buy) |
| 4/30 | Still Broken?  
Read: Speth, Part Two |
| 5/5  | Keeping Faith  
Read: Thomas Dunlop, “Conclusion: Quo Vadis?” (M) |
| 5/7  | An invisible majority  
Read: Paul Hawkin, “to Remake the World:” (M) |

**FINAL PAPER DUE MAY 15**