

**ANBE/BIOL 415 – CONSERVATION BIOLOGY**  
**DAILY ACTIVITIES AUTUMN 2009**

DATE	DAY	TOPIC/READING ASSIGNMENTS
Aug 26	Wed	Introduction & Expectations. <a href="#">Video: All Things Are Connected (13 min)</a>
28	Fri	<b>I. Major Issues that Define the Discipline</b> What is Conservation Biology? Primack, R.B. 2006. Chapter 1. Leopold, A. 1933. The Conservation Ethic. <i>Journal of Forestry</i> 31: 634-643.
31	Mon	What is Biological Diversity: Species Diversity, Genetic Diversity, and Ecosystem Diversity? Primack, R.B. 2006. Chapter 2.
Sep 2	Wed	Where is the World's Biological Diversity Found? Primack, R.B. 2006. Chapter 3.
4	Fri	<b>II. Valuing Biological Diversity</b> Ecological Economics and Direct Economic Values Primack, R.B. 2006. Chapter 4. Balmford, A., A. Bruner, P. Cooper, R. Costanza, S. Farber, R.E. Green, M. Jenkins, P. Jefferiss, V. Jessamy, J. Madden, K. Munro, N. Myers, S. Naeem, J. Paavola, M. Rayment, S. Rosendo, J. Roughgarden, K. Trumper, and R. Turner. 2002. Economic reasons for conserving wild nature. <i>Science</i> 297: 950-953. Kareiva, P., A. Chang, and M. Marvier. 2008. Development and conservation goals in World Bank projects. <i>Science</i> 321: 1638-1639.
7	Mon	Indirect Economic Values Primack, R.B. 2006. Chapter 5.
9	Wed	Ethical Values Primack, R.B. 2006. Chapter 6.
		<b>JOURNAL SUMMARY 1 DUE</b>
11	Fri	<a href="#">Case Study – Islands in Time: The Story of Florida Scrub – Professor Abrahamson</a> Newmark, W.D. 2008. Isolation of African protected areas. <i>Frontiers in Ecology and Evolution</i> 6:321-328.
14	Mon	<b>STUDENT-LED DISCUSSION 1</b> – The “Isolation of Protected Areas” Case Study
16	Wed	Ethical Values
		<b>JOURNAL SUMMARY 2 DUE</b>

DATE	DAY	TOPIC/READING ASSIGNMENTS
Sep 18	Fri	<p><b>Special Lectures (9 am &amp; noon): Dr. Jim Marden, Penn State University.</b>  <b>III. Threats to Biological Diversity</b></p> <p>Extinction  Primack, R.B. 2006. Chapter 7.</p>
21	Mon	<b>STUDENT-LED DISCUSSION 2 – “Environmental Ethics” Case Study</b>
23	Wed	<p>Vulnerability to Extinction  Habitat Destruction, Fragmentation, Degradation, and Global Climate Change  Primack, R.B. 2006. Chapters 8 and 9.  Chapin, F.S.III, J.T. Randerson, A.D. McGuire, J.A. Foley, and C.B. Field. 2008. Changing feedbacks in the climate-biosphere system. <i>Frontiers in Ecology and Evolution</i> 6:313-320.  Lenoir, J., J. Gegout, P. Marquet, P. de Ruffray, and H. Brisse. 2008. A significant upward shift in plant species optimum elevation during the 20<sup>th</sup> Century. <i>Science</i> 320: 1768-1771.  Gore, A. 2008. <i>A generational challenge to repower America</i> (27 min)  <a href="http://www.wecansolveit.org/pages/al_gore_a_generational_challenge_to_repower_america/">http://www.wecansolveit.org/pages/al_gore_a_generational_challenge_to_repower_america/</a></p>
25	Fri	<p>Habitat Destruction, Fragmentation, Degradation, and Global Climate Change  Nature editorial. 2008. A task of terawatts. <i>Nature</i> 454:805.  Schiermeier, Q., J. Tollefson, T. Scully, A. Witze, and O. Morton. 2008. Electricity without carbon. <i>Nature</i> 454:816-823.</p> <p><b>JOURNAL SUMMARY 3 DUE</b></p>
28	Mon	<b>Case Study – Galapagos: Islands in Time – Professor Abrahamson</b>
30	Wed	<b>STUDENT-LED DISCUSSION 3 – “Ecotourism: Pros and Cons” Case Study</b>
Oct 2	Fri	<p>Habitat Destruction, Fragmentation, Degradation, and Global Climate Change</p> <p><b>TERM PROJECT OUTLINE AND BIBLIOGRAPHY DUE</b></p>
5	Mon	<p>Overexploitation, Invasive Species, and Disease  Primack, R.B. 2006. Chapter 10.</p>
7	Wed	<p><b>IV. Conservation at the Population and Species Levels</b></p> <p>Problems of Small Populations/Applied Population Biology  Primack, R.B. 2006. Chapters 11 &amp; 12.  Price, P.W., W.G. Abrahamson, M.D. Hunter, and G. Melika. 2004. Using gall wasps on oaks to test broad ecological concepts. <i>Conservation Biology</i> 18: 1405-1416.</p>
9	Fri	<b><u>MIDTERM EXAMINATION</u></b>
12	Mon	<b>Fall Recess</b>
14	Wed	<p>Establishing New Populations  <i>Ex Situ</i> Conservation Strategies (<b>350 Climate Action Festival Events, Oct 14-17</b>)  Primack, R.B. 2006. Chapters 13 and 14.</p>

DATE	DAY	TOPICS/READING ASSIGNMENTS
Oct 16	Fri	Case Study – <i>Conservation’s Challenges – Global Problems Make Local Problems – Professor Abrahamson</i>
19	Mon	<b>STUDENT-LED DISCUSSION 4</b> – “Global Climate Change” Case Study
21	Wed	<b>V. Practical Applications</b> Establishing Protected Areas Primack, R.B. 2006. Chapter 15. Arendt, R.G., A.E. Hutchinson, H.M. Harper, and S. Kuter. 1997. Growing greener: putting conservation into local codes. <i>Natural Lands Trust</i> . 17 pp. Chazdon, R.L. 2008. Beyond deforestation: restoring forests and ecosystem services on degraded lands. <i>Science</i> 320: 1458-1460.
23	Fri	Designing Networks of Protected Areas: Landscape Ecology Primack, R.B. 2006. Chapter 16.
26	Mon	<b>STUDENT-LED DISCUSSION 5</b> – “Restoration of a Damaged Ecosystem” Case Study
28	Wed	Managing Protected Areas Primack, R.B. 2006. Chapter 17.  <b>LETTER TO CONGRESS OR A STATE LEGISLATURE DUE</b>
30	Fri	Outside Protected Areas Primack, R.B. 2006. Chapter 18.
Nov 2	Mon	<b>STUDENT-LED DISCUSSION 6</b> – “Can We Drill Our Way to Energy Security? Arctic National Wildlife Refuge and Offshore Drilling” Case Study
4	Wed	Restoration Ecology Primack, R.B. 2006. Chapter 19.
6	Fri	<b>VI. Conservation and Human Societies</b> Conservation and Sustainable Development Primack, R.B. 2006. Chapter 20. McMichael, A.J., C.D. Butler, and C. Folke. 2003. New visions for addressing sustainability. <i>Science</i> 302: 1919-1920.
9	Mon	<b>STUDENT-LED DISCUSSION 7</b> – “Sustainability of the Tropics” Case Study
11	Wed	Video: <i>Green Plans</i>
13	Fri	International Approach to Conservation Primack, R.B. 2006. Chapter 21.
16	Mon	Agenda for the Future Primack, R.B. 2006. Chapter 22. <i>On Making an Oral Presentation – Dr. Abrahamson</i>
18	Wed	<b>STUDENT-LED DISCUSSION 8</b> – “Green Plans” Case Study

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DATE	DAY	TOPICS/READING ASSIGNMENTS
Nov 20	Fri	<b>TERM-PROJECT PRESENTATIONS 1</b> (3 – 15-min Presentations)
23	Mon	<b>TERM-PROJECT PRESENTATIONS 2</b> (3 – 15-min Presentations)
25	Wed	Thanksgiving Recess
27	Fri	Thanksgiving Recess
30	Mon	<b>TERM-PROJECT PRESENTATIONS 3</b> (3 – 15-min Presentations)
Dec 2	Wed	<b>TERM-PROJECT PRESENTATIONS 4</b> (3 – 15-min Presentations)
4	Fri	<b>TERM-PROJECT PRESENTATIONS 5</b> (3 – 15-min Presentations)
7	Mon	<b>TERM-PROJECT PRESENTATIONS 6</b> (1 – 15-min Presentation, Course Summary, Course Evaluations) <b><u>WRITTEN TERM PROJECT DUE</u></b>
Dec 10-17		<b><u>FINAL EXAMINATION (COMPREHENSIVE)</u></b>

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