

HIST SCI/IES 353
HISTORY OF ECOLOGY
Fall 2006

TR 9:30-10:45, 301 Educational Sciences Bldg.

Professor Gregg Mitman

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Office Hours: 11:00-12:00 p.m. Tues., 2:30-3:30 p.m. Wed., or by appointment

Course Description: To some, ecology represents a scientific discipline that studies the interactions between and among organisms and their environments. To others, it is synonymous with the environmental movement of the sixties, Earth First, and green politics. This course explores the historical development of ecology as a professional science, with due attention paid to the political ramifications of particular ecological ideas and how they have been incorporated into environmental discussions surrounding wilderness preservation, the Dust Bowl, population control, the DDT controversy, and wildlife conservation in the Third World. Throughout the course, we will situate the history of ecological ideas and concepts within their cultural, political, and social environments, exploring the interrelated histories of nature's economy and political economy, from colonialism to global capitalism, from laissez-faire individualism to the welfare state. We shall also highlight the places of study in which the science of ecology developed, from tropical islands to midwestern prairies, from pastoral landscapes to pristine wilderness, in our investigation of ecological attitudes toward the human place in nature. A background knowledge of ecology or environmental issues is helpful, but not required.

Course Requirements: Because this course is based on a lecture/discussion format, class participation is essential. The reading material is an integral part of this course and provides the basis for weekly discussions. I will assign thought questions each week to help direct your reading and stimulate discussion. Short written answers to these questions constitute a major portion of your discussion grade. Two take-home exams will also be assigned.

Undergraduates:

1st Take-Home Exam (Due, October 31)	30%
2nd Take-Home Exam (Due, Dec. 20)	35%
Discussion	35%

Graduate Students: See last page of syllabus

If any problems arise, either academic or personal, that might jeopardize your performance in the course, you must try to inform me of the problem at the next available office hour, or by leaving a message with the Department of the History of Science (262-1406).

Any student in this course who has a disability that may prevent him or her from fully demonstrating his or her abilities should contact me personally as soon as possible so that we can discuss accommodations necessary to ensure full participation and facilitate your educational opportunities.

Students are expected to familiarize themselves with the UW policies on plagiarism and to assume responsibility for honesty in all course work.

Required Readings:

Gregg Mitman, Reel Nature: America's Romance with Wildlife on Film (Cambridge: Harvard University Press, 1999). Available through the University Bookstore.

Donald Worster, Nature's Economy: A History of Ecological Ideas, 2nd ed. (Cambridge: Univ. of Cambridge Press, 1994). Available through the University Bookstore.

A course packet of readings (CP) is also required. It is available for purchase through the Department of the History of Science, 7143 Social Science Bldg. All readings are also available on reserve at the Helen C. White College Library.

Topics and Readings

9/5 Introduction

The Balance of Nature

Reading: Worster, 26-55, 115-187

9/7 Linnaeus and the Economy of Nature

Discussion Readings:

C. D. Wilcke [Linnaeus], "On the Police of Nature," in Select Dissertations from the Amoenitates acadmice, trans. F. J. Brand (London, 1781), 129-166. **CP: 1-20.**

Lisbet Koerner, Linnaeus: Nature and Nation (Cambridge: Harvard University Press, 1999), pp. 82-112. **CP: 21-37.**

9/12 Ecologies of Empire

9/14 *Discussion Readings:*

Alexander von Humboldt, Aspects of Nature, in Different Lands and Different Climates; with Scientific Elucidations, trans. By Mrs. Sabine (Philadelphia, 1850), pp. 227-246. **CP: 37-48.**

Richard Grove, Green Imperialism: Colonial Expansion, Tropical Island Edens and the Origins of Environmentalism, 1600-1860 (Cambridge: Cambridge University Press, 1995), pp. 309-379. **CP: 49-85.**

9/19 Darwin's Entangled Bank

9/21 *Discussion Readings:*

Charles Darwin, The Origin of Species by Means of Natural Selection or the Preservation of Favoured Races in the Struggle for Life (1859). Edited by John W. Burrow. (New York: Penguin Books, 1982), pp. 114-129. **CP: 87-96.**

Robert M. Young, "Malthus and the Evolutionists; the Common Context of Biological and Social Theory," in Darwin's Metaphor: Nature's Place in Victorian Culture (Cambridge: Cambridge Univ. Press, 1985), 23-55. **CP: 97-113.**

Daniel P. Todes, "Darwin's Malthusian Metaphor and Russian Evolutionary Thought, 1859-1917," Isis 78 (1987): 537-553. **CP: 115-122.**

Humans as Modifiers

Reading: Worster, 258-290

9/26 Preservation, Conservation & Progressive Reform

9/28 *Discussion Readings:*

John Muir, Our National Parks (Boston: Houghton Mifflin Co., 1901), 1-15, 30-36. **CP: 123-136.**

Theodore Roosevelt, "Conservation," in T. Roosevelt, The New Nationalism, edited W. E. Leuchtenburg (Prentice-Hall, 1961), 49-76. **CP: 137-151.**

William Cronon, "The Trouble with Wilderness; or, Getting Back to the Wrong Nature," Environmental History 1 (1996): 7-28. **CP: 153-164.**

Mitman, Reel Nature, 5-25.

10/3 Natural History and the State

10/5 *Discussion Readings:*

Stephen Forbes, "The Lake as Microcosm," Bulletin of the Peoria Scientific Association 87 (1887): 77-87. **CP: 165-178.**

Daniel Schneider, "Local Knowledge, Environmental Politics, and the Founding of Ecology in the United States: Stephen Forbes and the 'Lake as a Microcosm,'" Isis 91 (2000): 681-705. **CP: 179-191.**

10/10 Managing Nature for Recreation

Film Showing: *The Jackson Hole Wildlife Park*

10/12 *Discussion Readings:*

Aldo Leopold, A Sand County Almanac (1949) (New York: Ballantine Books, 1966), 237-295. **CP: 193-220.**

Olaus Murie, "Fenced Wildlife for Jackson Hole," National Parks Magazine (1946): 8-11. **CP: 221-224.**

Mitman, Reel Nature, pp. 85-108.

10/17 Fascism and Forestry

10/19 *Discussion Readings:*

Franz Heske, German Forestry (New Haven: Yale University Press, 1938), pp. 1-43, 173-185. **CP: 225-258.**

Gert Groning and Joachim Wolschke-Bulmahn, "Politics, Planning and the Protection of Nature: Political Abuse of Early Ecological Ideas in Germany, 1933-1945," Planning Perspectives 2 (1987): 127-148. **CP: 259-270.**

Establishing the Discipline of Ecology

Reading: Worster, 191-253, 291-339, 359-387

10/24 Ecology on the Plains, Ecology on the Dunes

Film Showing: *The Plow that Broke the Plains*

10/26 *Discussion Readings:*

Paul B. Sears, Deserts on the March (Norman: Univ. of Oklahoma Press, 1935), 81-92, 119-132, 157-169, 197-231. **CP: 271-309.**

James C. Malin, The Grasslands of North America (Lawrence, Kansas: James C. Malin, 1947), 120-138, 151-168. **CP: 311-330.**

10/31 Adding an Animal Dimension

Mid-Term Exam Due

11/2 *Discussion Readings:*

Warder Clyde Allee, "Co-operation Among Animals," University of Chicago Magazine 20 (June, 1928), 418-425. **CP: 331-334.**

A. E. Emerson, "The Biological Basis of Social Cooperation," Illinois Academy of Sciences Transactions 39 (1946): 9-18. **CP: 335-340.**

Gregg Mitman, "From the Population to Society: The Cooperative Metaphors of W. C. Allee and A. E. Emerson," Journal of the History of Biology 21 (1988): 173-194. **CP: 341-352.**

11/7 Tropical Ecologies, Tropical Economies

11/9 *Discussion Readings:*

H. G. Wells, Julian Huxley, and G. P. Wells, The Science of Life (New York: Doubleday, 1931), 961-967, 996-1011, 1027-1032. **CP: 353-368.**

Charles Elton, Animal Ecology 1927; rpt. (London: Methuen & Co., Ltd., 1971), 50-70. **CP: 369-380.**

John C. Phillips, "Man at the Cross-roads," in Our Changing World-View, Anonymous (ed.), (1932): 1-20. **CP: 381-392.**

Helen Tilley, "Ecologies of Complexity: Tropical Environments, African Trypanosomiasis, and the Science of Disease Control in British Colonial Africa, 1900-1940," Osiris 19 (2004): 21-28. **CP: 393-402.**

11/14 The Rise of Ecosystem Ecology

11/16 *Discussion Readings:*

Raymond Lindeman, "The Trophic-Dynamic Aspect of Ecology," Ecology 23 (1942): 399-418. **CP: 403-414.**

Peter Taylor, "Technocratic Optimism, H. T. Odum, and the Partial Transformation of Ecological Metaphors after World War II," Journal of the History of Biology 21 (1988): 213-244. **CP: 415-432.**

Stephen Bocking, Ecologists and Environmental Politics: A History of Contemporary Ecology (New Haven: Yale University Press, 1997), 89-115. **CP: 433-450.**

Ecology and Its Publics

Reading: Worster, 342-359; Mitman, Reel Nature, 109-131

11/21 Ecology as a Household Word

11/28 Film Showing: *Rachel Carson's Silent Spring*

11/30 *Discussion Readings:*

Rachel Carson, Silent Spring (New York: Fawcett Crest, 1962), 13-23, 44-55, 97-119, 168-194, 244-262. **CP: 451-506.**

Vera Norwood, "The Nature of Knowing: Rachel Carson and the American Environment," Signs 12 (1987): 740-760. **CP: 507-518.**

12/5 The Politics of Population Control

Discussion Readings:

Paul R. Ehrlich, The Population Bomb (New York: Ballantine Books, 1968), 46-67, 158-173. **CP: 519-538.**

Barry Commoner, The Closing Circle (New York: Bantam Books, 1971), 122-137, 176-213. **CP: 539-566.**

12/7 Film Showing: *High Over the Borders, Wild Gold*

12/12 Coercive Conservation?

12/14 *Discussion Readings:*

Bernhard Grzimek, Rhinos Belong to Everybody (New York: Hill & Wang, 1962), 173-193. **CP: 567-580.**

David Western, In the Dust of Kilimanjaro (Washington, DC: Island Press, 1997), 43-61, 94-110. **CP: 581-600.**

Ramachandra Guha, "The Authoritarian Biologist and the Arrogance of Anti-Humanism: Wildlife Conservation in the Third World," The Ecologist 27 (1997): 14-20. **CP: 601-607.**

Mitman, Reel Nature, 180-202.

Graduate Student Requirements

Graduate students in this course will be responsible for all undergraduate readings and assignments. In addition, graduate students are required to attend a bi-weekly meeting outside of the 9:30-10:45 TR schedule to discuss the course readings in greater depth and the following books, which represent a variety of approaches and subjects in the area of the history of ecology and environmentalism. You are required to write a 750-word review for three out of the five books, summarizing the major themes and historiographic approach, which you should bring to our discussion. These will substitute for the discussion portion of the undergraduate class grade.

Grove, Richard H. Green Imperialism: Colonial Expansion, Tropical Edens, and the Origins of Environmentalism, 1600-1800. New York: Cambridge University Press, 1995.

Jacoby, Karl. Crimes against Nature: Squatters, Poachers, Thieves, and the Hidden History of American Conservation. Berkeley: University of California Press, 2001.

Mitman, Gregg. The State of Nature: Ecology, Community, and American Social Thought, 1900-1950. Chicago: University of Chicago Press, 1992.

Stepan, Nancy Leys. Picturing Tropical Nature. London: Reaktion Books, 2006. Cambridge: Harvard University Press, 2002.

Bocking, Stephen. Nature's Experts: Science, Politics, and the Environment. New Brunswick, N.J.: Rutgers University Press, 2004.

You also have the option of substituting a 15-20 page research paper in place of the take-home exams. The topic must be chosen in consultation with me. If you choose this option, you must abide by the following schedule:

October 5: Approval of paper topic.

November 9: Discussion of paper sources and preliminary findings.

December 5: Rough draft (typed) due.

December 20: Final paper due.