

PSCI/GIA 5364
Virginia Tech
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Public Ecology

Understanding and Managing Human Ecosystems

Instructor

David P. Robertson

Description

Each year millions of people participate in thousands of public ecology projects worldwide. Public ecology is a distinctive approach to environmental science, policy, and governance that seeks to improve environmental quality and the quality of life in places where people live, work, and play. As such, public ecology has much in common with civic environmentalism, community-based conservation, sustainable development and related approaches to understanding and managing human ecosystems.

Public ecology exists at the confluence of several major currents shaping today's environmental arena: 1) the need for dialogue and collaboration across the many disciplinary, professional, political, cultural, and other institutional boundaries that divide environmentally concerned scientists, policymakers, and citizens; 2) the need for citizens, communities, government agencies, international organizations, and other social institutions to work together using local knowledge, professional expertise, and other resources to address today's complex and controversial social and environmental concerns; and 3) the need for shared visions of nature and human society that encourage people to create healthy human ecosystems and sustainable, resilient, and livable communities at local, regional, and global scales.

This course examines the history, current status, and future prospects of public ecology by exploring three broad themes: Nature, Science, and Society. In addition, this course has a service-learning aspect to the extent that it can help 1) advance the art and science (theory and practice) of public ecology and 2) unify and empower public ecologists and public ecology projects worldwide.

Learning Objectives

Upon successful completion of this course, students should be able to:

- Think more critically and creatively about environmental science and policy;
- Demonstrate a broad, transdisciplinary understanding of ecology, environmental science, and ecosystem management;
- Communicate effectively with specific audiences regarding public ecology and human ecosystems:
 - Define key terms and concepts;
 - Identify contributing disciplines, professions, and cultural perspectives;
 - Identify significant people, projects and publications;

- Describe the history, current status, and future prospects of public ecology;
- Conduct independent research and writing regarding public ecology in action.

Evaluation/ Grading Criteria

- Discussion & Participation 40%
- Short Assignments 30%
- Final Project 30%

Critical and creative thinking are the keys to success in this course!

Methods

This course includes weekly readings, class discussion, independent research, creative thinking and critical writing.

Sample Reading List

- Sirianni, C., and L. Friedland. 2001. Civic Environmentalism. Pages 85-137 in Civic Innovation in America: Community Empowerment, Public Policy, and the Movement for Civic Renewal. University of California Press, Berkeley.
- Karkkainen, B. 2002. Collaborative ecosystem governance: scale, complexity, and dynamism. Virginia Environmental Law Journal 21:189-243.
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- Norton, B. G. 1998. Improving ecological communication: the role of ecologists in environmental policy formation. Ecological Applications 8:350-364.
- Borchers, J. G., and J. Kusel. 2003. Toward a civic science for community forestry. Pages 147-163 in M. Baker and J. Kusel. Community Forestry in the United States. Island Press, Washington, D.C.
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- Lipschutz, R. D. 1999. Bioregionalism, civil society and global environmental governance. Pages 101-120 in M. V. McGinnis, editor. *Bioregionalism*. Routledge, New York.
- Landy, M. 1999. Local government and environmental policy. Pages 227-260 in M. Derthick, editor. *Dilemmas of Scale in America's Federal Democracy*. Cambridge University Press, Cambridge.
- Steinberg, P. F. 2004. Synergy is possible: state-society relations and environmental governance in developing countries. Unpublished manuscript.
- Poisner, J. 1996. A civic republican perspective on the National Environmental Policy Act's process for citizen participation. *Environmental Law* 26:53-94.
- Seidenfeld, M. 1992. A Civic republican justification for the bureaucratic state. *Harvard Law Review* 105:1512-.
- Konisky, D. M., and T. C. Beierle. 2001. Innovations in public participation and environmental decision making: examples from the Great Lakes Region. *Society and Natural Resources* 14:815-826.
- Karkkainen, B. C., A. Fung, and C. Sabel. 2000. After backyard environmentalism: toward a performance-based regime of environmental regulation. *American Behavioral Scientist* 44(4):690-709.
- Rydin, Y., and M. Pennington. 2001. Public participation and local environmental planning: the collective action problem and the potential of social capital. *Local Environment* 5(2):153-169.
- Knopman, D. S., M. M. Susman, and M. K. Landy. 1999. Civic environmentalism: tackling tough land-use problems with innovative governance. *Environment* 41(10):24-32.
- Rubin, C. T. 2002. Civic environmentalism. Pages 335-351 in B. A. Minteer and B. P. Taylor, editors. *Democracy and the claims of nature: critical perspectives for a new century*. Rowman & Littlefield Publishers, Lanham, Maryland.
- Agyeman, J., and B. Angus. 2003. The role of civic environmentalism in the pursuit of sustainable communities. *Journal of Environmental Planning and Management* 46(3):345-363.
- Agrawal, A., and C. G. Gibson. 1999. Enchantment and disenchantment: The role of community in natural resource conservation. *World Development* 27(4):629-649.
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- Stoll-Kleeman, S., and T. O'Riordan. 2002. From participation to partnership in biodiversity protection: experience from Germany and South Africa. *Society and Natural Resources* 15:161-177.
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- Bradshaw, B. 2003. Questioning the credibility and capacity of community-based resource management. *The Canadian Geographer*. 47(2):137-150.
- Conley, A., and M. A. Moote. 2002. Evaluating collaborative resource management. *Society and Natural Resources* 16:371-386.
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- Innes, J. E., and D. E. Booher. 1999. Consensus building and complex adaptive systems: a framework for evaluating collaborative planning. *APA Journal* 65(4):412-423.