

Syllabus

FW 620 - Ecological Policy - 3 credits

Oregon State University

Fall - 2022

Course Content:

Emphasis is on current, complex, and controversial North American and international ecological policy issues. Primary focus is exploring the role of scientists, technocrats, elected and appointed officials, the public, and interest/advocacy groups in ecological policy analysis and implementation. Specific topics and case studies considered are: (1) deciding which species to save from extinction; (2) managing wildfire on public lands; (3) balancing competing demands for scarce water supplies; (4) managing large predatory wildlife, especially wolves, cougars, and grizzlies; (5) recovering and sustaining wild salmon runs; (6) determining the appropriate use of genetically modified organisms; (7) resolving multiple-use conflicts in managing public forests; (8) addressing human-caused climate change; (9) assessing the political clashes over whaling and other marine mammals; and (10) understanding conflict and controversy over marine protected areas and ecosystem management.

Instructor:

Robert T. Lackey

Professor of Fisheries

Office: Weniger 459

Voice: (541) 602-5904

Email: Robert.Lackey@oregonstate.edu

Web: <http://blogs.oregonstate.edu/lackey/>

Dr. Bob Lackey is professor of fisheries science at Oregon State University. In 2008, he retired after 27 years with the Environmental Protection Agency's 350-person national research laboratory in Corvallis. He served as Deputy Director, Associate Director for Science, and other senior science leadership positions. Since his first fisheries and wildlife job as an undergraduate mucking out raceways in a trout hatchery, he has worked on various environmental and natural resource issues from multiple positions in government and academia. His professional assignments involved diverse and politically contentious issues, but he mainly operated at the interface of science and policy. He has published several hundred peer-reviewed scientific articles and reports, authored many more for general audiences, and is a fellow of the American Fisheries Society and the American Institute of Fishery Research Biologists. Dr. Lackey has long been an educator, having taught at five North American universities, and currently teaches a graduate course in ecological policy at Oregon State University. Canadian by birth, he is now a U.S.-Canadian dual-citizen living in Corvallis, Oregon.

Target Audience:

Graduate students in natural resources, environmental sciences, ecological sciences, natural resource and environmental economics, oceanography, civil engineering, marine resource management, political science, environmental ethics, and others with a background and interest in ecological policy, environmental protection, and natural resource management issues.

Prerequisites:

Students should have an academic background and current understanding of natural resources, environmental science, ecology, natural resource economics, ecological economics, marine resource management, oceanography, geosciences, political science, or similar discipline, or have the consent of the professor.

Course Grading:

Individual student performance will be assessed on an A → F basis (A = 4.0, A- = 3.7, B+ = 3.3, etc.) and determined by grading each student's written products: (1) the quality of the critiques of assigned articles submitted; and (2) the quality, frequency, and timeliness of participation in the Canvas Discussion Board. A detailed grading rubric is posted in the Syllabus and in Canvas.

*First, over the 10-week term, each student is required to write at least eight (8) 1,000 – 1,600-word critiques evaluating weekly topics (a topic consists of a policy backgrounder and two assigned articles) and submit the critique in Microsoft Word format (or equivalent) by midnight Corvallis time of the following **Saturday** (see class schedule on the following Syllabus pages). Late submissions will be accepted but penalized substantially (one grade per day or partial day late). An example of the format and style of the critiques is posted in Canvas and this template should be used **precisely** to guide the writing and formatting of each critique. The eight (8) critiques with the highest grades will be used to assess each student's overall performance. Consequently, a student has the option, without penalty, to skip 2 of the 10 possible critiques. The grading rubric posted in Canvas provides more detail.*

Second, over the 10-week term, each student will substantively and regularly participate on the Canvas Discussion Board every week. Each week (Sunday), I will post a discussion topic on the Discussion Board and your participation is required. Regular participation by individual students is defined minimally as at least twelve (12) posts per week, preferably more. Each student's contribution to the weekly online discussions will be evaluated on content, originality, frequency, and timeliness. You are expected to participate in the Discussion Board each week, even if you elect not to write a critique for that week. Taken as a whole, the grade for student performance on the Canvas Discussion Board will count as the equivalent of two (2) critiques. Weekly, you will receive detailed feedback on your Discussion Board contributions, but your overall grade will not be assigned until Finals Week.

Third, your overall grade for the course will be determined by averaging the eight highest weekly critique grades and the two grades for participation in the Discussion Board. There will be no examinations.

Critique Grade Definitions:

A = 4.0	Exceptional	Outstanding work, in-depth analysis and thought; very well written using highly insightful perspectives and displaying substantial originality; a pleasure to read using superior sentence variety and vocabulary. The critique could be posted on the Discussion Board as a “how to” example for other FW 620 students. In short, a great job.
A- = 3.7		Generally excellent to very good analysis and thought; well written with originality making skilled use of appropriate vocabulary, sentence structure, and logically organized. Overall, a very good critique.
B+ = 3.3	Superior	Good analysis and thought, well written using effective sentence structure and appropriate vocabulary, but does not display in-depth analysis or much originality.
B = 3.0		Good analysis and thought to support main points; soundly written. A superior example of analysis of the case study.
B- = 2.7		Competent analysis and thought and soundly written, but the approach, supporting analysis, and aspects of the critique could be improved. Overall, a credible job.
C+ = 2.3	Average	Fair analysis and thought are demonstrated in the critique, but the approach and/or writing need improvement.
C = 2.0		Work demonstrates an understanding of the case study, but fails to address all dimensions adequately, and/or writing style and organization limits the reader’s ability to extract broad ideas and concepts. Not bad, but it could be better.
C- = 1.7		Minimally acceptable work from a graduate student. Thought and analysis are inadequate and flawed and/or use of language, sentence structure, or organization needs considerable improvement.
D = 1.0	Inferior	An unacceptable critique from a graduate student. Demonstrates a lack of intellectual effort that does not illustrate a command of subject matter, approach, and/or is poorly written; difficult to follow.
F = 0.0	Fail	Barely managed to submit something. The critique does not address the case study except at the most superficial level. It is difficult to determine the major analytical insights because poorly constructed logic is presented.

Course Required Reading:

Assigned policy/science articles (20) and “policy backgrounders” (10) are required reading. Copies of all required articles and backgrounders are posted in Canvas. Optional articles (“background readings”) are also posted in Canvas and students are encouraged to at least skim these to gather additional perspectives regarding the case study. There is no textbook for this course.

Student Learning Goals and Assessment:

- *Understand and explain in clear and logical writing the basic principles of contemporary ecological policy and ecological policy analysis (as measured by the quality of the weekly critiques of policy case studies and contributions to the Discussion Board).*
- *Evaluate and assess in clear and understandable writing how contemporary natural resource management and environmental protection issues are analyzed from a policy perspective (as measured by the quality of the weekly critiques of policy case studies and contributions to the Discussion Board).*
- *Analyze a series of ecological policy case studies using a range of perspectives and viewpoints presented in this course on how science interconnects with ecological policy analysis and decision-making (as measured by the quality of the weekly critiques of policy case studies and contributions to the Discussion Board).*

Students with Disabilities:

Accommodations for students with disabilities are determined and approved by Disability Access Services (DAS). If you, as a student, believe you are eligible for accommodations but have not obtained approval, please get in touch with DAS immediately at 541-737-4098 or at <http://ds.oregonstate.edu>. DAS notifies students and faculty members of approved academic accommodations and coordinates the implementation of those accommodations. While not required, students and faculty members are encouraged to discuss the implementation of individual accommodations.

Reach Out for Success:

University students, like everyone, encounter setbacks from time to time. If you experience difficulties and need assistance, it is important to reach out. Consider discussing the situation with an instructor or academic advisor. Learn about resources that assist with wellness and academic success at:

<https://counseling.oregonstate.edu/reach-out-success>

If you are in immediate crisis, please contact the Crisis Text Line by texting OREGON to 741-741 or call the National Suicide Prevention Lifeline at 1-800-273-TALK (8255).

Expectations for Student Conduct:

Students are expected to maintain proper academic conduct in all aspects of FW 620. This includes treating peers with respect and meeting the conduct expectations of Oregon State University regarding cheating or other behaviors. To review University expectations, please visit the following website:

<http://studentlife.oregonstate.edu/studentconduct>

FW 620 requires weekly and considerable writing from each student. Students are expected to be honest and ethical in their academic work. This includes using the work of students currently or previously enrolled in this class. The following relevant text is taken from the OSU website:

Academic and/or scholarly dishonesty is defined as an act of deception in which a student seeks to claim credit for the work or effort of another person, or uses unauthorized materials or fabricated information in any academic work or research, either through the student's own efforts or the efforts of another. It includes:

CHEATING - use or attempted use of unauthorized materials, information or study aids, or an act of deceit by which a student attempts to misrepresent mastery of academic effort or information. This includes but is not limited to unauthorized copying or collaboration on a test or assignment, using prohibited materials and texts, any misuse of an electronic device, or using any deceptive means to gain academic credit.

FABRICATION - falsification or invention of any information, including but not limited to falsifying research, inventing or exaggerating data, or listing incorrect or fictitious references.

ASSISTING - helping another commit an act of academic dishonesty. This includes but is not limited to paying or bribing someone to acquire a test or assignment, changing someone's grades or academic records, taking a test/doing an assignment for someone else by any means, including misuse of an electronic device. It is a violation of Oregon state law to create and offer to sell part or all of an educational assignment to another person.

TAMPERING - altering or interfering with evaluation instruments or documents.

PLAGIARISM - representing the words or ideas of another person or presenting someone else's words, ideas, artistry, or data as one's own. Plagiarism includes but is not limited to copying another person's work (including unpublished material) without appropriate referencing, presenting someone else's opinions and theories as one's own, or working jointly on a project and then submitting it as one's own.

For further information and resources specifically for Ecampus students, please visit the following university website:

<http://ecampus.oregonstate.edu/services/student-services/success/>

Class Schedule and Assignments

Week 0 — Introduction to FW 620

We will cover a considerable amount of material in this class; much of it will be new to you. If you are anxious to start, you should read the general background articles (posted in Canvas in Week 0). These articles will help you develop a "policy" mindset. The required articles (2 each week) are listed in Week 1-10 modules, but if you want to get a jump start on ecological policy analysis, here is your chance! Our primary focus in FW 620 will be the role of scientists, technocrats, elected and appointed officials, the public, and interest/advocacy groups in ecological policy analysis, advocacy, and policy-making. The goal for Week 0 is to help shift your perspective along these lines.

Week 1 — Deciding Which Species to Save from Extinction

This week, nine axioms or general principles about ecological policy will be presented and described in detail. The case study to develop your analytical skills will be the question of why should (or should not) endangered species be protected. Understanding these axioms will be essential to analyzing the case studies in Weeks 2 – 10. As you study the case studies presented in subsequent weeks, you will need to revisit these nine axioms regularly.

Backgrounder: Lackey, Robert T. — Axioms of Ecological Policy Analysis
Reading #1: See Canvas "Weekly Topics" for the specific article to read.
Reading #2: See Canvas "Weekly Topics" for the specific article to read.
Critique due: See Canvas for date

Week 2 — Wildfire Policy

One of the most challenging questions facing managers of public lands is developing a scientifically sound and publicly supported policy toward wildfire — one that meets society’s goals for those lands and is based on the best available scientific information. The diversity of opinion (policy preferences) is vast, even extreme, on what characteristics the desired policy should encompass. The wide range of policy perspectives is because, in part, many individuals and organizations have vested interests in the outcome of the policy debate.

Backgrounder: Lackey, Robert T. — Wildfire Policy

Reading #1: See Canvas “Weekly Topics” for the specific article to read.

Reading #2: See Canvas “Weekly Topics” for the specific article to read.

Critique due: See Canvas for date

Week 3 — Water Policy

The “water wars” have long been a fact of life in many areas of the western United States and are likely to be so for the foreseeable future. Recent court cases in the California Central Valley and the Oregon/California Klamath Basin are front and center on the policy and political scene. Dam removal (and construction) are hot topics in many States. Overall, many western regions continue to suffer from severe and long-term water shortages, especially for high quality water. The seemingly insatiable demand for freshwater shows little sign of letting up, nor do most analysts expect much change anytime soon. Many ecological policy issues are driven by competition for scarce water resources.

Backgrounder: Lackey, Robert T. — Water Policy

Reading #1: See Canvas “Weekly Topics” for the specific article to read.

Reading #2: See Canvas “Weekly Topics” for the specific article to read.

Critique due: See Canvas for date

Week 4 — Wolf, Cougar, and Grizzly Policy

Developing a politically acceptable policy about large predatory mammals (e.g., wolves, cougars, and grizzlies) is challenging. Much of the public supports their presence (cougars) or their reintroduction (wolves). Grizzly reintroduction is less commonly pitched. Conversely, many residents (especially in rural regions) are vehemently opposed primarily because of concerns about predation on livestock, pets, and wildlife (mostly deer and other important game species).

Backgrounder: Lackey, Robert T. — Wolf, Cougar, and Grizzly Policy

Reading #1: See Canvas “Weekly Topics” for the specific article to read.

Reading #2: See Canvas “Weekly Topics” for the specific article to read.

Critique due: See Canvas for date

Week 5 — Wild Salmon Policy

The case study this week will be salmon policy, particularly current conflicts in California, Oregon, Idaho, Washington, and British Columbia. Efforts to restore runs of salmon have been undertaken in this region since the mid to late 1800s. Billions of dollars have been spent, but without much long-term success. As newspaper articles regularly highlight, the plight of commercial and recreational salmon fishermen along the West Coast of North America appears grim.

Backgrounder: Lackey, Robert T. — Wild Salmon Policy
Reading #1: See Canvas “Weekly Topics” for the specific article to read.
Reading #2: See Canvas “Weekly Topics” for the specific article to read.
Critique due: See Canvas for date

Week 6 — GMO Policy

The debate over developing a consensus public policy concerning genetic engineering (often called genetic modification) is mired in vitriolic political arguments involving an amorphous mix of values, preferences, and scientific information. Many proponents of using the technology argue that it has been demonstrated to be low risk and is essential to providing sufficient high-quality food to meet human needs, especially in developing countries. Others say that resorting to genetic engineering is unnecessary (along with being dangerous) because people should not be forced to eat food produced by unproven technology.

Backgrounder: Lackey, Robert T. — GMO Policy
Reading #1: See Canvas “Weekly Topics” for the specific article to read.
Reading #2: See Canvas “Weekly Topics” for the specific article to read.
Critique due: See Canvas for date

Week 7 — Owl vs. Logging Policy

Public (owned by Federal or State governments) forests were created to attain public benefits, but exactly what are those benefits — and who should receive them? To some segments of society, the public forests ought to be managed to achieve the goals and aspirations of local (usually rural) residents which typically means that consumptive, economic uses (especially timber harvest and mining) ought to be encouraged or at least be part of a multiple use approach. To other segments of society, the forests ought to preserve the biotic heritage of the nation and be managed more like wilderness areas or national parks — with little or no commercial enterprise and strictly limited recreational activity.

Backgrounder: Lackey, Robert T. — Owl vs. Logging Policy
Reading #1: See Canvas “Weekly Topics” for the specific article to read.
Reading #2: See Canvas “Weekly Topics” for the specific article to read.
Critique due: See Canvas for date

Week 8 — Climate Change Policy

Most public debate over climate change policy revolves around “facts” and “science.” The implied assumption appears to be that “if we all agreed on the facts of the case (i.e., the science about climate change), then the appropriate policy choice would be clear-cut.” However, the distribution of costs and benefits is arguably the most important factor in choosing a specific policy option. As with all ecological policy issues, the most important factor is the perception of who receives the benefits vs. who will bear the costs.

Backgrounder: Lackey, Robert T. — Climate Change Policy
Reading #1: See Canvas “Weekly Topics” for the specific article to read.
Reading #2: See Canvas “Weekly Topics” for the specific article to read.
Critique due: See Canvas for date

Week 9 — Whaling and Marine Mammal Policy

Developing publicly supported, biologically sound policies regarding marine mammals (generally) and whales (specifically) are among the most challenging facets of natural resource management. Conducting credible, realistic, and helpful policy analysis is also exceptionally difficult. Many people view mammals very differently from fish and shellfish, and therefore, there are often drastically different and mutually exclusive competing policy goals. Policy analysis is complicated because, for marine mammals, society and individuals receive intangible benefits from preserving species, especially those in danger of extinction or those with charismatic qualities.

Backgrounder: Lackey, Robert T. — Whaling and Marine Mammal Policy
Reading #1: See Canvas “Weekly Topics” for the specific article to read.
Reading #2: See Canvas “Weekly Topics” for the specific article to read.
Critique due: See Canvas for date

Week 10 — Marine Protected Areas Policy

There are many definitions for marine protected areas (MPAs) and ecosystem management (EM). For MPAs, most definitions describe an area of the ocean environment reserved through law, policy, or regulation by a governmental organization to provide enhanced protection to part or all natural or cultural resources of the specified area. Common examples of marine protected areas are national and state parks and wildlife refuges. For ecosystem management (sometimes called ecosystem-based management), many definitions are used to describe this ambiguous and highly contentious notion. Both MPAs and EM gained popularity in response to the widespread realization that human pressures on ocean resources challenged their biological sustainability.

Backgrounder: Lackey, Robert T. — Marine Protected Areas Policy
Reading #1: See Canvas “Weekly Topics” for the specific article to read.
Reading #2: See Canvas “Weekly Topics” for the specific article to read.
Critique due: See Canvas for date
