Crossing Boundaries
The 9th Annual
Environmental Joint Campus Conference
*Linking People, Policy, & Science*

Saturday, May 19th, 2007
Willamette Atrium
University of Oregon

**Agenda**

8:00 – 9:00 | Registration and Poster Set Up

9:00 – 9:15 | Opening Remarks
Alan Dickman
UO Environmental Studies Program Director

9:15 – 10:15 | Keynote Address
Chet Bowers
PSU Adjunct Professor, Author

10:15 – 10:30 | Break

10:30 – 11:45 | Oral Presentations, Session A

11:45 – 12:30 | Poster Session

12:30 – 1:30 | Joint Campus Conference Luncheon

1:30 – 2:30 | Workshops, Session A

2:30 – 3:30 | Workshops, Session B

3:30 – 3:45 | Break

3:45 – 4:15 | Presentation of the University of Oregon Campus Sustainability Assessment

4:15 – 5:15 | Oral Presentations, Session B

5:15 – 5:30 | Closing Remarks TBA
Keynote Address

Chet Bowers  
Professor Adjunct, Portland State University; Author

Chet Bowers has been a faculty member of both the University of Oregon and Portland State University. He has written over 95 articles and 19 books. Twelve of these books investigate the cultural roots of the ecological crisis, placing special emphasis on the complicity of educational institutions, including public schools and universities. His work now focuses on eco-justice in undeveloped nations, the challenges that future generations face, and the necessity of revitalizing the world’s cultural commons as a means to resist environmental degradation and economic globalization. His writings focus on the ways in which the cultural and environmental commons should be incorporated into the reformation of public schools and universities. Chet Bowers has been invited to speak at 33 universities in the United States and 34 other universities across the globe. His works have been translated into Spanish, Korean, Japanese, and Chinese.

Workshops, Session A

"Resumes and Job Interviews: Identifying your Desirable Skills"  
Clarice Wilsey  
University of Oregon Career Center, Associate Director of Career Development Services

Room: Willamette 112  
If you have a resume, feel free to bring it! This workshop will help you to identify your employable skills, and teach you how to represent those skills on your resume an in job interviews. Learn how to demonstrate the skills you know you have to potential employers.

"Reference Management: EndNote and EndNote Web"  
Annie Zeidman-Karpinski  
University of Oregon Libraries, Science & Tech Services Librarian

Room: Willamette 110  
This workshop will familiarize you with EndNote and specifically with EndNote web. You will learn the basics of this reference management system that will not only help you to organize your sources, but will also save you hours when your create your bibliographies.
X Stream Team Activity #1
Jamie Messenger, Amanda Fay, Ryan Warner-Steel, Carolynne Bohannon, Jerri Moro; Project Coordinator: Shannon Tyman University of Oregon, Environmental Studies Program, Environmental Leadership Program

Room: Willamette Atrium
This activity introduces participants to stream ecology, salmon and their habitat with a focus on the Willamette Valley. Along with captivating interest, it allows students to relate science, history, and geography, in an interdisciplinary approach to learning. This activity will last approximately 30 minutes, and will be fun and splashy!

Workshops, Session B

"Yoga & Stress Management"
Kirsten Rudestam
University of Oregon Environmental Studies Program Alumna; Yoga Instructor

Room: Willamette 112
If you have a yoga mat, feel free to bring it! This workshop will teach you basic yoga techniques that can help you to better manage your stress, and also to increase your balance, strength, flexibility, and vitality. Enjoy a refreshing yoga practice with a sparkling individual as your instructor.

"Grant Writing"
Bob Choquette
University of Oregon Instructor; Director, Professional Development Services International Society for Technology in Education (ISTE)

Room: Willamette110

This workshop will teach you how to identify appropriate funding sources. It will also teach you the basics of grant writing dos and don’ts, as well as some advanced techniques. Learn how to apply for and get the best funding for you!

X Stream Team Activity #2
Jamie Messenger, Amanda Fay, Ryan Warner-Steel, Carolynne Bohannon, Jerri Moro; Project Coordinator: Shannon Tyman University of Oregon, Environmental Studies Program, Environmental Leadership Program

Room: Willamette Atrium
This activity introduces participants to stream ecology, salmon and their habitat with a focus on the Willamette Valley. Along with captivating interest, it allows students to relate science, history, and geography, in an interdisciplinary approach to learning. This activity will last approximately 30 minutes, and will be fun and splashy!

Oral Presentations, Session A

One Tribe and Its Environment
Suzanne Fluharty
Oregon State University, PhD candidate, Environmental Sciences, Applied Anthropology, Botany and Plant Pathology Departments

The Coquille Indian Tribe’s ancestral lands once covered one of Oregon’s larger coastal watersheds, however, this paper looks at one small landscape component to consider the creation of place. While a usefulness lies with recording the story of the Coquille Indians and their land in its own right, it also provides the focus for my basic premise that environmental histories viewed at the landscape level, offer an understanding of “the way people live on this Earth, experience the places they inhabit, confer meaning to these experiences, and anchor their identities within their environments” (Clavel 2001: 130). I suggest that the connectedness between Coquille Indians and Euphoria Ridge within their ancestral homelands is a specific example of countless iterations of culture-environment interactions that have transformed natural landforms, creating unique place-meaning. Using the theoretical framework of Memmott and Long (2002), I offer a depiction of the transformation through 1) the alteration of the environment’s physical characteristics, 2) the enactment of special behaviors and emotions to a particular environment, and 3) the group knowledge of past events, legends, or memories. In this way I show the dynamic construction of the Euphoria Ridge landscape as both a specific locale and as a cultural product, validating it as an appropriate means for studying the collective nature of place. Only through landscape studies that include complementary methodologies from across the sciences can we begin to perceive and comprehend the great breadth and interdependency among the web of people’s interactions that bond them with their environment.

Keywords: landscape, environmental history, place-meaning, Native American

Natural Resource Assessment of Channel Islands National Park
Elise Ferrarese
Oregon State University, Environmental Sciences, Graduate Student; National Parks Conservation Association: Center for State of the Park

The National Park Conservation Association (NPCA) initiated the State of the Parks program to assess the current condition of natural and cultural resources in the National Park system in order to “provide an accurate,
comprehensive understanding of resource conditions” in our national parks. A
natural resource assessment was completed for Channel Islands National Park
using a methodology developed by The Nature Conservancy to rate key
ecosystem components and functions. Existing information and data
pertaining to the park were collected, analyzed, and synthesized into a report.
The Channel Islands are often called the “Galapagos of North America” because
of the wealth of biodiversity they harbor, but the natural resources in the park
are far from pristine. A history of grazing was responsible for extensively
degrading terrestrial ecosystems. Overfishing, DDT contamination, and
extirpation of a keystone predator have caused significant harm to marine
systems within the park. Park staff have facilitated some successful resource
management projects in recent years, including an intensive Inventory and
Management program that monitors key resources and has acted as an early
warning signal for several species declines. I will discuss the assessment
methodology and my findings.

Keywords: Natural resource assessment, Channel Islands National Park,
ecosystem function

Using wetland diatom communities to indicate watershed land-use:
Is there a difference between epiphytic and benthic diatom signals?
Christian A. Parker
Portland State University, Environmental Sciences and Resources

Diatom communities are used to indicate the health of aquatic systems. These
communities have been shown to respond to substratum, with different
communities existing on different substratum. We looked at both benthic and
epiphytic diatom communities to see if they differed and therefore reflect
different environmental characteristics. We used procrustes analysis to
compare NMDS ordinations of each assemblage. Environmental vectors were
fitted to the ordinations to evaluate the strength of the variable to each
assemblage. Results indicate that benthic and epiphytic assemblages are not
significantly different from each other and have similar environmental signals.

Keywords: Diatoms, Wetlands, NMDS, Procrustes, Bioassessment

Ecovillages: The Role of Place in Challenging Consumer Culture
Diana M. Fischetti
University of Oregon, Environmental Studies & Department of Geography, dual
Master’s candidate

Voluntary simplicity addresses not only the patterns of material consumption
in industrialized nations and their associated environmental, political, social,
and cultural impacts, but also the psychological impacts of consumer culture,
and the often associated desire for a more fulfilling and meaningful existence.
Accepting the assertion that consumption, as structured by capitalism, results
in the construction of consumers’ sense of personal identity as well as the production of meaning (Goss 2004; White 2002) has led many to question whether personal identity is enhanced, satisfaction gained, or happiness found through consumption. Social scientists have begun to discover that within industrialized consumer culture, beyond a certain threshold people’s ability to derive satisfaction from consumption actually decreases with increasing consumption. The relationship between materialism and well-being is now understood to be an inverse one (Etzioni 1999; Myers 2004; Sterns 2001). In addition to consumption, sense of place also plays a role in the construction of personal identity (Massey 2000; Rose 2000; Tuan 1996). Ecovillages are communities whose members strive to employ voluntary simplicity and to live in a socially and environmentally sustainable manner (Kirby 2004). Ecovillages represent the deliberate creation of a place that embodies the rejection of consumer culture and the cultivation of other means of constructing meaning. These communities exhibit specific social and environmental design characteristics. In the case of the ecovillage, a challenge to consumer culture has indeed resulted in a landscape that embodies this rejection. Cultural landscape theories can illuminate the ways in which identity, contestation, and values are wrapped up in the creation and re-creation of the built landscape of the ecovillage (Black 2003; Brace 2003; Robertson & Richards 2003).

Keywords: sense of place, ecovillage, consumption, identity, materialism, consumer culture

**Oral Presentations, Session B**

*Risk to biodiversity on private land from orthodoxy in the regulation of species: a political ecology of the Willamette Valley’s oak savanna*

Adam Novick
University of Oregon, Environmental Studies, Graduate Student

From primary evidence and research by others, I find that orthodoxy in the regulation of species inadvertently risks exacerbating the loss of biodiversity on private land, by ignoring or discounting any risk to species from their regulation and any benefit to species from voluntary conservation and maintenance. These regulatory externalities include discouraging voluntary conservation and maintenance and encouraging defensive management, due to the effect of regulation on the market value of selectively regulated land. The orthodoxy apparently arises from a now discredited belief in "the balance of nature", yet serves to defend the power of individuals to use species as weapons to limit development on the property of others. I suggest that with constraints on public funding, the conservation of biodiversity might be improved by clarifying policy goals and expanding the range of regulatory strategies to consider allowing private ownership of particular ecosystems, where such a strategy might offer a net benefit to species. I also suggest that such change might be possible under existing law, under theories of substantive due process and reasonable investment-backed expectations; that such change might recognize present de facto policy; that recent conservation
rhetoric seems to foretell such change; and that such change might improve political support for biodiversity and more productive types of environmental regulation. I further suggest that despite the orthodoxy, actors might initiate such change by recognizing or declaring a right for citizens to use private investment to conserve or maintain particular ecosystems, based on biological impact analysis of policy alternatives.

Keywords: biodiversity, conservation, regulatory externalities, orthodoxy, planning

Conscientization and Misconceptions’ Roles in Natural Hazard Preparedness
Carlos A. Rios, (John DeLaughter, Shawn Rowe, & Charley Faria)
Universidad de Antioquia, Facultad de Educación, Departamento de Ciencias y Artes; Oregon State University, Dept of Science and Mathematics Education, Environmental Sciences

Natural hazards such as earthquakes/tsunamis (e.g., Sumatra 2004, Indonesia), hurricanes (e.g., Katrina 2005, USA), volcanoes (e.g., Nevado del Ruiz 1985, Colombia), and floods (e.g., Venezuela 1999), can exact a tremendous toll on both lives and property. And yet, most damage from natural hazards can be mitigated or even avoided completely with proper preparedness. Why, then, do so few people take precautions? A primary method for presenting disaster education is via free-choice learning (Falk & Dierking, 2002), which takes place when an individual opts to engage in a learning activity (e.g., reading about earthquakes, going to a science museum). Because most of the learning we do about things like natural hazards is done on our own free time by our own choice, participation in free-choice learning activities can enhance the "conscientization" process or the ongoing process of becoming aware of the impacts of self-behaviors (Freire, 1970, 1997, 1998), which contributes to emergency preparedness (Norris et al., 2002). The process of Conscientization (Awareness plus Actions) about natural hazard preparedness often occurs as part of free-choice learning in informal educational environments such as museums, parks, afterschool or outdoor school programs, or public presentations at libraries, rotary clubs, scientific films, etc. The research reported here examines critically the idea that scientific factual knowledge about natural hazards correlates positively with natural hazard preparedness by examining the general audience responses. Conclusions are drawn for environmental education programs in free-choice learning environments. Over the summer of 2006, as part of the EarthScope Education & Outreach Program efforts, we conducted a pilot research project on common misconceptions about geosciences, natural hazard preparation styles, and awareness for natural disasters at the entry of some informal learning environments on both the East and West coasts of the United States. Our intent was to see if the level of misconceptions about geosciences concepts might correlate to the level of self-preparedness by using an instrument combining Likert-scale and forced choice items. The results of our research will be presented.
Invasive species that physically alter habitat may have drastic impacts on the composition of biological communities. The Australasian burrowing isopod *Sphaeroma quoianum* is a non-native habitat-altering species present in many estuaries of the Pacific coast of North America. *Sphaeroma quoianum* burrow in firm intertidal substrata, creating extensive interconnected burrow networks. These burrow networks provide habitat for many estuarine organisms and may increase the rate of shoreline erosion. This study examines how densities of *S. quoianum* individuals, their burrows, and inquilines (burrow cohabitants) changed over time and between different substrata. Densities of *S. quoianum*, burrows, and inquilines all were significantly higher in wood and sandstone than marsh banks, likely since these firm substrata can withstand more burrowing before collapsing. Across all substrata, *S. quoianum* density was highest in August followed, in descending order, by January and April. Inquilines were present in approximately 86.3% of all samples. Fifty-six species from seven phyla were found inhabiting occupied and unoccupied burrows of *S. quoianum*. The predominant inquilines were free-living amphipods and isopods. Five sedentary non-native species were found living within burrows at tidal heights higher than their typical range. Thus, the novel habitat provided by burrows of *S. quoianum* may alter the intertidal distribution of some non-native estuarine fauna. Burrows may provide a host of ecological benefits for an intertidal organism including cover from predators, amelioration of environmental stresses, and an enriched interior surface. Although burrows of this invasive isopod are utilized by a variety of estuarine species, most inquilines are likely incidental inhabitants.

Keywords: bioeroder, burrowing isopod, ecosystem engineer, invasive species, *Sphaeroma quoianum*
Presentation of the University of Oregon Campus Sustainability Assessment

Coevlen Barry, Bari Doeffinger, Diana Fischetti, Meghan Murphy, Rebecca Silver, (Rebecca Briggs, Matt Peterson)
University of Oregon, Environmental Studies, Graduate Students

The University of Oregon’s Mission Statement commits the institution to sustainable policies and practices. The Mission Statement affirms that, in addition to a commitment to education, the University has an obligation to “the acceptance of the challenge of an evolving social, political, and technological environment by welcoming and guiding change rather than reacting to it.” In addition, the Mission Statement expresses a responsibility to promote “the cultivation of an attitude toward citizenship that fosters a caring, supportive atmosphere on campus and the wise exercise of civic responsibilities and individual judgment throughout life.” It is critical for the University of Oregon to be a model of sustainability, in terms of its educational goals, its mission to produce conscientious citizens, and its ambition to guide change in response to shifting environmental circumstances.

Campus environmental sustainability is a topic of growing interest for universities across the country. The University of Oregon has been a leader in sustainability, adopting environmental programs, such as campus recycling, long before most other institutions. Many faculty, staff, and student-driven initiatives have contributed to campus sustainability efforts. For example, the Campus Recycling Program has won numerous national awards. The University population has decreased water consumption per capita by 13% in the last 5 years. The University has made considerable investment into energy conservation and renewable energy use. Alternative transportation incentives and infrastructure are well developed on campus. President Frohnmayer recently signed the President’s Climate Commitment to reduce greenhouse gas emissions by 80% by 2050. However, there has been little coordinated effort to systematically evaluate the effectiveness of these initiatives. During the 2007 winter and spring terms, seven Master’s students in the Environmental Studies Program, under the guidance of the University’s Sustainability Coordinator, researched and produced this University of Oregon Campus Sustainability Assessment. This comprehensive Assessment examines the degree to which campus activities, institutional commitment, and infrastructure encourage progress towards sustainability. The authors sought to address the following issues: 1)The University of Oregon’s progress towards sustainability; 2) The change in the environmental impacts of the University of Oregon’s activities over the last five to ten years; and 3)The identification of baseline data and creation of benchmarks, which can be used for internal and external comparison over time. In addressing these issues, the Assessment demonstrates the University’s leadership in sustainability, as well as opportunities for improvement.

The Assessment evaluates eleven indicators that reveal the University’s performance in and progress towards sustainability. Each indicator is comprised of several measurements: Governance, Endowment Investment,
Academics and Culture, Materials Management, Food, Greenhouse Gas Emissions, Energy, Transportation, Water, Landscape, Building. While it is clear that the University is making progress toward sustainability, there is plenty of opportunity for improvement. Based on the findings from this Assessment, we recommend the following high-priority actions. 1) The University of Oregon should establish new sustainability-related policies and modify existing policies. 2) The University should make programmatic changes to support sustainability efforts. 3) The University should increase its information gathering capabilities to allow a more thorough evaluation of sustainability efforts and their successes or failures. 4) The University should continue to invest in reasonable and prudent capital projects that have significant sustainability payoffs. These recommendations respond to the University’s current performance, and we recognize that circumstances will shift in the future. Sustainability is an evolving process, not a static condition. As the University continues to assess and reform its policies and practices, we are confident that it will successfully rise to meet the challenges posed by changing environmental conditions. We hope this Assessment provides momentum for the University’s efforts to strengthen its commitment to educate responsible citizens and demonstrate leadership in campus sustainability.