AESS Mission

Association for Environmental Studies and Sciences (AESS) is an independent faculty-and-student-based professional association in higher education, designed to serve the needs of environmental scholars and scientists who value interdisciplinary approaches to research, teaching, and problem-solving. Founded in 2008, the Association seeks to provide its members with the latest environmental information and tools to create better courses, strengthen research, develop more satisfying careers, harness the power of a collective voice for the profession, and enjoy each other’s company at national and regional meetings.

A major aim of AESS is to encourage interdisciplinary understanding of environmental science, policy, management, ethics, history, and all of the other vital contributions of traditional disciplines. From its beginning, the Association has been envisioned as a community of environmental scholars and scientists, not a confederation of disciplines. Fundamental to its members’ embrace of higher education is the notion that broad advances in environmental knowledge require disciplinary, interdisciplinary, and transdisciplinary approaches to research and learning.

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President Kimberly Smith
Secretary David Hassenzahl
Treasurer Gregory Mohr
Communications Lyle Birkey
Welcome to the AESS Annual Meeting: “Confronting Complexity.” This year’s meeting should set a new bar for us; we have an unusually rich assortment of panels, workshops and field trips, along with new awards, events and plenty of opportunities for informal conversation.

In keeping with our tradition of recognizing the contribution of the arts to environmental studies and sciences, this conference will feature two film screenings. As always, we will showcase high-quality, important and provocative scholarship that contributes to environmental studies and sciences, improves teaching and administration of ESS programs, and supports our activities as educators, public intellectuals and engaged citizens. This year’s meeting will also serve as a memorial for founder and visionary Bill Freudenburg, and we will remember Bill together at the Saturday banquet, where we will unveil a new award in his honor.

A great deal of work went into organizing this event. I would like to acknowledge the excellent efforts of Stephanie Kaza and Rick Paradis, our local site hosts, and Rich Wallace, program chair, and members of the Program Committee. Thanks to Cam Weimar and the awards committee who created our new lifetime achievement award and managed the student paper award process. The Outreach Committee also deserves thanks for their efforts over the past year in raising the profile of our conference. Thanks also to Lyle Birkey, our skilled administrative assistant, and to NCSE for their support for AESS.

It’s been a great honor to serve as your president for the past two years. AESS is blessed with an extraordinarily talented, diverse and energetic membership, and I look forward to being part of its growth and development for many years to come. On behalf of the AESS Council, welcome to Burlington and enjoy the conference!

Kimberly Smith, AESS President

Welcome to the 2011 AESS conference! This is your conference – designed to support the diverse interests of the environmental studies and sciences community. In developing the conference program, the AESS program committee’s goal was to help you share, explore, learn, and engage in the disciplinary and interdisciplinary scholarship and practice necessary to maintain our precious natural and social systems.

The conference program also reflects our desire to empower our community. ES&S has existed as a distinct field since the mid-1960s, and yet, until AESS was founded in 2008, no professional organization existed that was explicitly designed to represent and serve our collective interests. The 2011 AESS conference program feeds our need to engage theory and praxis, share our experiences in pedagogy and program design, and learn how to more effectively achieve our shared goals.

Conference programming is also fun – both to arrange and experience. This year we are delighted to present the Vermont premier of the documentary “Green Fire: Aldo Leopold and a Land Ethic for Our Time” followed by a panel with the filmmakers. As well, we’ll feature live music (by AESS members!), the inaugural AESS lifetime achievement award, our annual student award, and sessions on all manner of topics from performing arts to ecology, economics to religion, education to ethics, and much more. We are delighted you are joining us!

Rich Wallace, AESS 2011 Program Chair
on behalf of the 2011 AESS Program Committee
Welcome to our fair campus at University of Vermont –
We are pleased to be able to share UVM’s green values and green academics with AESS members and participants in the 2011 conference. Your lead host, the UVM Environmental Program, was founded in 1972 with a lofty vision for creative interdisciplinary curriculum and cross campus exchange. For almost 40 years we have been supporting students and faculty in emerging facets of Environmental Studies, doing our best to stay current with the tsunami of environmental issues and information. Along with other programs in Environmental Science, Natural Resources, Community Development, Geography, and Environmental Engineering, as well as a strong Office of Sustainability and many student environmental clubs, UVM offers a rich setting for learning and action inspired by real world environmental concerns.

It is a great pleasure to host people from around the United States and as far afield as Brazil and South Africa in this gathering of environmental faculty and colleagues. We have much to learn from each other in both formal paper sessions and informal coffee breaks. We hope you will come away from this conference with new ideas, new friends, and a renewed sense of commitment to the good work you are doing in Environmental Studies and Sciences. Many thanks to all those at UVM who helped put this conference together – with special appreciation for Ibit Getchell of the Environmental Program and Maureen Cartier and Nicole Zarrillo of UVM Conference Services.

May our small state with big ideas be your home away from home for a few days, and may you thoroughly enjoy this great gathering we have been planning for you all year. If there is anything we can do to make your visit to UVM and Burlington more comfortable or rewarding, please let us know.

Stephanie Kaza, Director, UVM Environmental Program

Welcome to the Green Mountain State! And green it is indeed. The old adage that the climate here is nine months of winter and three months of damn poor sledding typically doesn’t apply to Burlington in June. We’ve put away our skis and sap buckets and have been busy planning for the AESS 2011 Annual Meeting. We hope you enjoy what we have to offer both in terms of engaging conference programs and Vermont hospitality.

Deserving or not, Vermont is often lauded as a place where the scale and pace of things are more sustainable. Politics tend to be local, new ideas are welcome although scrutinized fervently, and the people exercise an interesting mix of fierce independence and dedicated cooperation. Traditions are reverently held here, not so much for their anachronistic value, but because they are still currently applicable. The state just recently mandated photo driver’s licenses and the only reason Vermonters lock their car doors during the summer months is so neighbors don’t fill up their back seats with excess zucchini and summer squash.

I personally encourage you to explore what Vermont has to offer; be it the verdant mountain landscapes, the rural countryside mosaic of farms, fields, woodlots, and villages, or the diverse and energized urban scene of downtown Burlington from Church Street to the waterfront on Lake Champlain. And please let us know what you think and how we can help.

Rick Paradis, UVM Environmental Program
CONFERENCE OVERVIEW

Thursday, June 23
7:30    Breakfast
8:30    All-day and morning field trips (depart Davis Center Oval)
9:00-4:30 All-day professional development workshops (Lafayette)
9:00-12:00 Half-day workshops
12:00    Lunch
1:00-4:30 Afternoon workshops, field trips
5:00    Opening reception and welcome, Taste of Vermont buffet (Billings)
7:00    Opening Plenary session (Billings Theater)
Dr. Heidi Cullen, CEO and Director of Communications, Climate Central

Friday, June 24
7:30    Breakfast
9:00-10:30 Session A (all sessions in Davis Center, Jeffords, Terrill)
10:30    Coffee break
11:00-12:30 Session B
12:45    Lunch, roundtable discussions
2:00-3:30  Session C
3:30    Coffee break
4:00-5:30  Session D
5:45    AESS Business meeting (Livak 1)
Dinner on your own
6:30    ESS Junior Scholars Reception (Brennan’s, Davis Center)
7:30    Vermont Premiere, Green Fire, film and discussion (Silver Maple Ballroom)

Saturday, June 25
7:30    Breakfast, roundtable discussions
9:00-10:30 Session E
10:30    Coffee break
11:00-12:30 Session F
12:30    Break, pick up box lunch for field trip
1:00    Field trips (depart Davis Center Oval)
5:30    Break
6:30    Poster session and reception (Livak Fireplace Lounge)
7:30    Evening banquet, awards and entertainment (Silver Maple Ballroom)

Sunday, June 25
7:30    Breakfast
8:00    AESS Council meeting (Handy Family Room)
9:00-10:30 Session G
10:30    Coffee and snack break
11:00    Closing plenary event (Sugar Maple Ballroom)
The Honorable Bernie Sanders, U.S. Senator (I-VT)
12:00    Lunch
1:00    Adjourn
Dr. Heidi Cullen, CEO and Director of Communications, Climate Central

Dr. Heidi Cullen serves as a research scientist and correspondent for Climate Central where she reports on climate and energy issues for programs like PBS NewsHour. Before this Dr. Cullen served as The Weather Channel’s first on-air climate expert and helped create Forecast Earth, a weekly television series focused on climate change and environment. Dr. Cullen has worked as a research scientist at the National Center for Atmospheric Research (NCAR) in Boulder, Colorado. She received the NOAA Climate & Global Change Fellowship and spent two years at Columbia University’s International Research Institute for Climate and Society, working to apply long-range climate forecasts in Brazil and Paraguay. She is a member of the American Geophysical Union and the American Meteorological Society, and is an Associate Editor of the journal Weather, Climate, Society. Dr. Cullen also serves as a member of the NOAA Science Advisory Board. She received a Ph.D. in climatology and ocean-atmosphere dynamics at the Lamont-Doherty Earth Observatory of Columbia University. Dr. Cullen is the author of The Weather of the Future (Harper Collins, 2010) and is a Visiting Lecturer at Princeton University.

The Honorable Bernie Sanders, U.S. Senator (I-VT)

Bernie Sanders was elected to the U.S. Senate in 2006 after serving 16 years in the House of Representatives. He is the longest serving independent member of Congress in American history. After graduating from the University of Chicago he moved to Vermont. Elected Mayor of Burlington in 1981, he served four terms. Before his 1990 election as Vermont’s at-large member in Congress, Sanders lectured at the John F. Kennedy School of Government at Harvard and at Hamilton College in upstate New York. Senator Sanders has focused on the shrinking middle class and widening income gap in America. His top concerns also include global warming, universal health care, fair trade policies, supporting veterans and preserving family farms. “As the only member of the majority to serve on both the Senate Energy and Natural Resources Committee and the Environment and Public Works Committee, Sanders has played key roles in crafting a successful energy bill that has become law and negotiating a global warming bill that seeks deep reductions in the power plant, factory and automobile emissions that create climate change.” (Burlington Free Press)
Connecting to the Internet

A UVM GuestNet account has been created for you. Conference participants will receive a guest login name and password that will allow access to the Internet and email from a UVM computer or your laptop.

For wireless Internet access while on campus:
1) Join the “UVM Guest” wireless network by opening a web browser and visiting any website. You will be presented with a login form labeled “GuestNet.”

2) Enter your guest login name and password then click “Log In.” You will be brought to the website you originally requested. You will then be able to visit any other website and use email and most other Internet programs.

Please note: You will need to try to visit a website before attempting to do anything else on the Internet. Otherwise your computer may not connect properly.

For IT assistance while on UVM’s campus, the UVM Computing Helpline (802-656-2604) is available on Thursday and Friday 8:00 am – 4:30 pm, unavailable Saturday and Sunday.

Library Access

The Bailey/Howe Library hours are: Thursday 8am-10pm; Friday 8am-5pm; Saturday noon-5pm; Sunday closed. The library has over 200 computers for visitor use. You can plug your laptop into the available network jacks in the Cyber Café and on the second floor along the north wall opposite the main staircase. Both color and black-and-white printers are set to print in duplex mode (both sides of a sheet of paper). Print jobs are sent to a centralized server and then picked up at a print station.

Social Networking

You can use #aess11 to share comments on Twitter. Please do share your impressions with those outside the conference!

Technical specs for digital presentations

Each session room will be equipped with a computer, digital projector, and sound system. The presentation computers have internet access and all conference rooms on Friday through Sunday have wireless access. For those of you using PowerPoint or other digital files for your presentation you should have provided your presentation for uploading before the conference. We will ensure that your presentation is loaded onto the computer in your session’s room prior to the start of your session. Because of the limited time available for presentations and discussion in each session, please come early to the session to make sure all is in order for your presentation. Professional technical support will be available at all conference locations.
Sponsors

Diamond ($5,000)
Environmental Program, University of Vermont

Platinum ($3,000)
Marine Mammal Commission

Gold ($1,500)
Chatham University
Rubenstein School of Environment and Natural Resources, University of Vermont
Springer Verlag Publishers

Silver ($750)
Middlebury College
Udall Foundation
Ursinus College
Saint Michael’s College

Bronze ($300)
Center for Humans and Nature
Dartmouth College
Island Press
The Aldo Leopold Foundation
Centennial Celebration - Weeks Act

The 2011 AESS conference was made possible by the hard work of many staff and volunteers. Special thanks to:

UVM Environmental Program team:
Stephanie Kaza, lead faculty host
Rick Paradis, lead staff host and Conference Services liaison
Ibit Getchell, field trips and program book assistance
Debbie Krug, field trip logistics
Field trip leaders (we thank all of you on pages 8 and 29-30!)
Student assistants: Alma Arteaga, Julia Breul, Alyssa Bucci, Ben Carlson, Kathryn Daly, James DeBiasi, Leah Delaney, Phil Fandel, Katherine Fox, David Manago, Michelle Marion, Nicole Robbins, Naani Sheva, Shaina Casper, Corrie Wilcox, Hannah Ohlson, Elise Schadler, Kristy Ryan, Alex Nenopoulos

We are also grateful for assistance from Dr. Saleem Ali, Paddy Shea at Senator Sanders’ office, and Michelle Atherton in President Fogel’s office.

AESS officers and committee chairs:
Rich Wallace, conference program chair
Kim Smith, AESS president
Lyle Birkey, AESS administrative assistant
Karen Kellogg, sponsors and exhibitors chair
Cam Weimar, awards committee chair
Jim Proctor, 2010 conference host
Phil Camill, 2010 conference program chair

AESS 2011 Program Committee members:
David Cherney, Mary Collins, Janet Fiskio, Katie Purvis-Roberts
Ken Wilkening

UVM Conference and Event Services:
Maureen Cartier, senior conference coordinator
Nicole Zarrillo, conference coordinator
Jeff Warden, web designer and technology coordinator
Donna O’Brien, registration
Davis Center staff, general conference support

Program Book Design:
Kate Strotmeyer
7:30 am: Breakfast
Mount Mansfield Dining Room

8:30 am: Half-Day and All-Day Field Trips
Depart from the Davis Center Oval, entrance to the Davis Center

T-2 Camel’s Hump Hike
Carrie Pucko, Ph.D student, Plant Biology (University of Vermont)

T-3 Split-Rock Champlain Wildway Tour
Jim Northup, Executive Director, Northeast Wilderness Trust
Rose Graves, Conservation Director, Northeast Wilderness Trust

T-4 Middlebury College Sustainability Tour
Jack Byrne, Director of Sustainability Integration (Middlebury College)
Nan Jenks Jay, Dean of Environmental Affairs (Middlebury College)

T-5 Cycle the City: Sustainable Burlington
Kevin Rose, Local Motion Trailside Center Manager

T-6 Walk through Centennial Woods Natural Area
Teage O’Connor, Field Naturalist and Lecturer, Environmental Studies (University of Vermont)

9:00 am – 4:30 pm: All-Day Workshops

W-1 Setting up a Sustainability Faculty Fellows Program
Stephanie Kaza, Gioia Thompson, Matt Kolan, and Wendy Verrei-Berenbeck (University of Vermont)
Lafayette L100
This workshop focuses on infusing sustainability across the curriculum through professional development of affiliated faculty fellows. Leaders will provide sample curriculum, readings, exercises, and training activities. Topics include: how to engage a variety of disciplines, the role of systems thinking and sense of place, how to develop partner sponsorship and funding support, how to recruit fellows and conduct program assessment. The goal of such a program is to enable faculty to develop plans and identify resources to infuse sustainability into their teaching through student projects, new units, or new courses.

W-2 Integrating Environmental Health into Existing and New Courses
Caryl Waggett (Allegheny College)
William Sullivan (University of Illinois at Urbana-Champaign)
Lafayette L210
In recent decades, the role of environmental health scientists has grown from providing basic sanitation and hygiene to reducing exposure to harmful substances. At the same time city managers, transportation planners, architects, biotech engineers, advertisers, and food marketers all play a significant role in promoting individual and community health. This workshop will provide an opportunity for faculty to develop a segment of an existing or new course to explicitly address environmental health concepts. We will review foundational concepts in environmental health and systems thinking and address educational strategies for teaching interdisciplinary concepts, including local research and applied projects.
9:00 am – 12:00 pm: Morning Workshops

W-6: Making Green Organizations More Racially Diverse: Debunking Myths about People of Color and the Environment
James Francisco Bonilla (Hamline University School of Business)
Lafayette L200
The future of the environmental movement and the legacy of America’s great outdoors will soon be in the hands of a new generation of Americans, one very different from the generation that preceded it. Demographic shifts in the U.S. population point to the inevitable fact that people of color will become the new majority within twenty years. This session developed from research addressing the absence of significant numbers of people of color in traditional outdoor and environmental organizations. We will examine five pervasive myths that inhibit people of color from greater participation and leadership and debunk environmental myths surrounding people of color as well as poor and working class people. We will discuss barriers to fuller participation for people of color in the environmental movement, and explore a range of strategies for colleges and universities to make environmental programs more reflective of a new generation of emerging environmentalists.

W-7 Getting Published: Writing for The AESS Journal & Related Publications
Walter (Tony) Rosenbaum (University of Florida)
Lafayette L107
This will be an interactive session led by AESS Journal Editor-in-Chief and other members of the Journal’s Editorial Board. The purpose is to encourage journal submissions from AESS members, to publicize the journal, and to provide support to younger or inexperienced authors. There will be considerable emphasis on “how to.” This will involve reviewing examples of manuscripts rated good, acceptable with revisions, not acceptable, and discussing what makes those distinctions.

W-8 Complexity and Creativity: Skills from Improv Artists
Jennifer Joy Pawlitschek, writer, actor, comedian and trainer
Lafayette L111
Environmental scientists are confronted by complexity in many arenas. Addressing ecological problems requires not just answers to difficult technical questions, but also the ability to respond to social and ethical concerns. In order to effectively confront multifaceted environmental problems, people need not only rational and critical thinking tools, but also the ability to embrace complexity and respond with creative solutions. In this cross-disciplinary, highly interactive workshop, participants will be introduced to methods that theatre actors use to train their minds to manage complexity with creativity. Improvisational training offers ways to handle the complexity of the unscripted stage environment, while maintaining character and collaborating effectively with colleagues. The exercises will help participants build collaborative skills, develop a sense of group awareness, and draw upon creativity spontaneously and effectively.

12:00 pm: Lunch
Lafayette/Old Mill Annex foyer

1:00 pm – 4:30 pm: Afternoon Workshops
W-4  Research Ethics and Cultural Competence Training for Community-based Studies
Dianne Quigley (Brown University)
Lafayette, LI11

Many environmental research projects take place in communities with diverse cultural groups that have particular histories, traditions, group processes, and research experiences that have not been well served by traditional research ethics and Institutional Review Board (IRB) processes. Native Americans, African-Americans, Asian Americans, and other culturally-diverse, resource-poor communities have experienced forms of exploitation whereby research subjects are recruited through deception, authoritative persuasion or coercion. Economically disadvantaged groups whose decision-making about informed participation in research projects may be impaired by low literacy, a conditioned submission to authority or financial need, are at particular risk for exploitation.

To prepare researchers for engaging with diverse cultural groups, the Northeast Ethics Education Partnership (NEEP), an NSF-funded training initiative between SUNY-ESF and Brown University, has developed training modules combining cultural competence skills with human subjects protections. We will share curriculum for graduate and faculty mentoring programs, examine sample case studies and review training materials. Participants will become aware of how racial stereotypes, ethnocentric approaches and inappropriate communication styles can impede respect for persons and justice. We will look at new approaches to gaining informed consent with cultural groups that account for communal values and oral traditions while meeting the requirements of IRBs.

W-5: Professional Science Master’s Degrees: An Opportunity for Environmental Programs
David Blockstein, Council of Environmental Deans and Directors/National Council for Science and the Environment), Carol Lynch (Council of Graduate Schools), Jean Shaake (University of North Texas/National Professional Science Masters Association), Ursula Bechert (Oregon State University), Tolessa Deksissa (University of District of Columbia), Eban Goodstein (Bard College)
Time:  2:00 pm – 5:30 pm
Lafayette, L200

Professional Science Master’s degrees are one of the fastest growing areas of higher education with more than 200 created in the past decade. A Professional Science Master’s (PSM) is an innovative graduate degree that consists of two years of academic training in an emerging or interdisciplinary area of science, mathematics, or technology. The PSM also contains a professional component that usually includes an internship and “cross-training” in business, management, ethics and communications. PSMs can provide a link between environmental education and environmental careers by adding a practical element to traditional education. This workshop will provide an introduction to PSMs, including examples of environmental PSMs and practical steps to forming and sustaining a PSM.
THURSDAY, JUNE 23

5:00 pm: Opening reception and welcome, *Taste of Vermont* Buffet (Billings)
Welcome, Stephanie Kaza, conference host (University of Vermont)
Welcome, Daniel Mark Fogel, President (University of Vermont)

5:45 pm: Vermont: A Sense of Place
Natural History of Vermont  Rick Paradis (UVM Environmental Program)
Sustainable Burlington  Tom Hudspeth (UVM Environmental Program)
Campus Sustainability at UVM  Gioia Thompson (UVM Office of Sustainability)

7:00 pm: Opening Plenary
Film *Flight Paths: Murder of Crows, Murmuration of Starlings*, Dennis Heynsky (Rhode Island School of Design)
Welcome and introduction, Kimberly Smith, AESS President
Plenary address by Dr. Heidi Cullen, CEO, Director of Communications, Climate Central

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A Message from UVM President Fogel
Welcome to the University of Vermont. I hope you’ll enjoy exploring the University through the many windows that this conference will open for you.

Vermont is distinguished by innovative research and scholarship across all the major fields of study, with special distinction in environmental studies and sciences. Founded by heroes of the American Revolution, the University of Vermont is the fifth oldest university in New England (after Harvard, Yale, Dartmouth, and Brown). Vermont is often known by the initials “UVM,” derived from its Latin name, *Universitas viridis montis*, the University of the Green Mountains. The University has a living commitment to the ethical foundations of democracy and to values long associated with the State of Vermont: fairness, social justice, environmental stewardship, openness, independence, lack of pretense, and the achievement of practical results.

Welcome to our campus, our fine city Burlington, and the marvelous natural beauty all around you -- to the east, the Green Mountains and to the west, across the sparkling waters of Lake Champlain, the high peaks of the Adirondacks. I hope you fully enjoy your visit to our campus and community and come back again soon.

– President Daniel Mark Fogel
## SESSIONS OVERVIEW

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7:30 am: Breakfast
Mount Mansfield Dining Room

9:00 am – 10:30 am: Session A

A-1 Theoretical Innovation in ESS
Chair: Jonathan Clark
Terrill 207, symposium
The Anthropology of Land and Sea in the California Bight
Jennifer Perry (Pomona College)
The Political Ecology of the (Nonhuman) Body
Jonathan Clark (Ursinus College)
Transcendence in Nature: Measurement and Theory
Nora Davis
How to Protect a Mountain: Theories of Social and Policy Change in Opposition to Mountaintop Removal Mining
Laura Bozzi (Yale University)

A-2 How Mass Media Confront Complexity
When Covering Climate Change, part 1
Chair: Maxwell Boykoff
Williams Family Room, panel
Climate Change: What’s the Story?
Thomas Lueck (Ramapo College of New Jersey)
Newspaper Coverage of Climate Change: Foreign Voices in the Context of a Developing Country
Bruno Takahashi, Mark Meisner (SUNY College of Environmental Science and Forestry)
Uncertainty Rhetoric in U.S. Television News Coverage of the Copenhagen Climate Change Conference
Kristine Mattis, Magda Konienzna, Xuan Liang, Jiun-Yi Tsai, Sharon Dunwoody (University of Wisconsin–Madison)

A-3 Ecological Insights: Pushing the Boundaries
Chair: Phil Camill
Livak 1, symposium
Counting a Species that Won’t Sit Still: Effectiveness of Population Counts on the New Zealand Fur Seal (Arctocephalus forsteri).
Jenipher Cate (University of Canterbury)
Raising Whales: Recent Advances in Cetacean Ecology
Joe Roman (University of Vermont)
Systems Biology, Multi-Level Hierarchies and Evolutionary Theory: The Ecosystem as a Unit of Natural Selection
An Overview of Conservation Medicine
Basil Tangredi (Green Mountain College)

A-4 Environmental Collaboration Outside the Classroom, part 1
Chair: Michael Berger
Jost Foundation Room, panel
Campus-Community Partnerships for a Sustainable Future: Connecting to the Community via Service-Learning Courses
Tom Hudspeth (University of Vermont)
Understanding, Teaching, and Influencing Campus Sustainability from a Systems Perspective
Stephen Posner, Ralph Stuart (University of Vermont)
Use of Project-Based Learning within an Environmental Health Laboratory Course
Michelle Homan (Gannon University)
Engaging Non-Environmental Science Majors in Sustainability through a Transformative, Action-Based, Experiential Learning Challenge
Michael Berger, Judah Axe, Elizabeth Scott (Simmons College)

A-5 Green Economics: Theory and Practice
Chair: Benjamin Weil
Jeffords 127, symposium
Green Water, Gray Economy
Marya Czech (Lourdes College)
A Market Model Based Financial Benchmark Required to Access Finance for Renewable Energy Projects in South Africa
Umesh Kumar (SUNY Canton), John Fay (University of Cape Town)
Green Jobs: How Green and For Whom?
Benjamin Weil (University of Massachusetts-Amherst)
A-6 Food Systems: Theory & Practice, part 1
Chair: David Blockstein
Jeffords 112, panel
Meat and Meanings: Adult-Onset Hunters' Discursive Constructions of the Hunt
Tovar Cerulli (University of Massachusetts-Amherst)
A Continuum of Exchange: Gifts, Commodities and Community Supported Agriculture (CSA)
Signe Porteshawver (Tufts University)
Conventional Food Plot Management in an Organic Coffee Cooperative: Explaining the Paradox
Katlyn Morris (University of Vermont)
Integrating Complex Systems for the Green Economy: Can Diversified Farming and Biobased Chemicals meet?
Alastair Iles (University of California at Berkeley)

A-7 Networks of Sustainability: Examining & Opening Up the Politics of Power System Transitions
Chairs: Eve Vogel and Darrin Magee
Chittenden Bank Room, panel
Electric-Social Revolutions in the Pacific Northwest from 1890 to the Present: The Punctuated Politics of Expansion, Integration, Inclusion and Sustainability
Eve Vogel (University of Massachusetts - Amherst)
The Life and Death of a Nuclear Power Plant: Examining the News and Public Discourse around Re-Licensing Vermont Yankee
Richard Watts (University of Vermont)
Scaled Policy Disarticulation Undermines Energy Transition Networks: An Analysis of Federal to Local Energy Policy and Wind Power Development
J. Anthony Abbott (Stetson University)
Global Capital, National Development, and Transnational Environmental Activism: The Conflict over the Three Gorges Dam on the Yangtze River in China
Yuen-ching Bellette Lee (University of Chicago)
Power Sector Reforms and Decision Politics in China
Darrin Magee (Hobart and William Smith Colleges)

A-8 Interdisciplinary Environmental Education and Sustainability Education Degree Programs: Transitions and Transformations
Chair: Nicholas Smith-Sebasto
Livak 2, panel
Education for a Sustainable Society
Shirley Vincent (National Council for Science and the Environment)
Enabling Sustainable Thinking in an Undergraduate Environmental Studies Program
Dave Gosselin (University of Nebraska-Lincoln)
Evolution of an Environmental Studies Degree Program to Reflect more Sustainability Learning Outcomes: A Case Study in Transitioning from Environmental Education Toward Sustainability Education
Rod Parnell (Northern Arizona University)
Creating a New B.S. in Sustainability Science Degree: A Case Study of Kean University
Nicholas Smith-Sebasto (Kean University)

A-9 A Place for History in Environmental Studies, part 1
Chair: Eric Mogren
Jeffords 110, symposium
A Place for History in an Environmental Studies Program
Eric Mogren (Northern Illinois University), Jill Mudgett (University of Massachusetts, Amherst) Sarah Frohardt-Lane (University of Illinois)
History as a Link Between Environmentalism and Regionalism in Vermont
Jill Mudgett (Independent historian)
World War II and the Stigmatization of Public Transportation
Sarah Frohardt-Lane (University of Illinois)
Crooked Waters: A History of Riparian Conflict and Common Law in the Kayaderosseras Watershed, NY
Karen Kellogg (Skidmore College)
A-10  Open Source Learning
Chair: Eban Goodstein
Terrill 308, panel
Campus to Congress: From Avatars to Candidates
Eban Goodstein (Bard College Center for Environmental Policy)
A Case for Open-Source Learning
Jon Isham (Middlebury College)

10:30 am:  Coffee and snack break
Livak Fireplace Lounge

11:00 am – 12:30 pm:  Session B

B-1  Forests: Their Multiple Dimensions in a Complex World
Chair: Gerald Marten
Livak 1, panel
Facilitating Carbon Market Participation for Small Scale and Community-Based Forestry Projects
Cecilia Danks (University of Vermont), Rachael Beddoe (University of Vermont), Elise Schadler (University of Vermont), Jennifer Wright, (Green Mountain National Forest)
Understanding the Role of Domestic Urban Forestry in Voluntary Carbon Markets
Elise Schadler, Cecilia Danks (University of Vermont)
Going Local with Carbon Offsets? Potential for Local Markets for Forest Carbon Mitigation
Cecilia Danks (University of Vermont), Charles Kerchner (AgRefresh), Laury Saligman (Conservation Collaboratives)
Carbon Pools in Coffee Agroforests and Dry Tropical Forests in the Western Highlands of Guatemala
Mikaela Schmitt-Harsh (Indiana University)
EcoTipping Points: Reversing Tropical Deforestation and Associated Carbon Dioxide Emissions
Gerald Marten (University of Hawaii)

B-2  Confronting Complexity: The Brazilian Experience
Chair: Ajibola Badiru

B-3  Education for Sustainable Energy
Chair: David Feldman

Jeffords 110, panel
REDD+ Press Coverage in Brazil from 2005-2009: A Media Analysis
Peter May (Federal Rural University of Rio de Janeiro), Bruno Calixto, (Amigos da Terra), Maria Fernanda Gebara (Federal Rural University of Rio de Janeiro)
What’s Causing People to Conserve Forests? - A Comparative Analysis of Private Forest Conservation and Reforestation in the United States and Brazil
Tatyana Ruseva (Appalachian State University), Catherine Tucker (Indiana University), Juliana Farinaci (University of Campinas)
Comparing the Urban Configuration of São Paulo with Great Metropolitan Cities
Ajibola Badiru (Instituto de Pesquisas Energéticas e Nucleares), Ayobami Badiru (CEFET-PB), Maria Aparecida Pires (Instituto de Pesquisas Energéticas e Nucleares)
Non-geomorphologic Complexity in Water Sectors: Case of Alto Tiete Hydrographic Region (URGHI-6) Sao Paulo, Brazil
Ajibola Badiru (Instituto de Pesquisas Energéticas e Nucleares), Ayobami Badiru (CEFET-PB), Maria Aparecida Pires (Instituto de Pesquisas Energéticas e Nucleares)
Avoided Costs from Carbon Sequestration in Remnants of Atlantic Forest and Cerrado Biomes, Sao Joao del Rei Region, Brazil
Eneida Campos, Vanessa Barbosa (Federal University of Sao Joao del Rei)

Jeffords 127, panel
Numbers not Adjectives — Helping Students Understand Energy
David Feldman (College of the Atlantic)
The Use of Systems and Statistical Modeling in General Education Environmental Science Classes
Mick Womersley (Unity College)
Energy Education in ESS: It Can (and Should) Be Done!
John Perkins (National Council for Science and the Environment)
Energy Education: The Boy Scout Energy Merit Badge
Dennis Showers (SUNY Geneseo)
Rewards and Challenges of Hands-on Renewable Energy Projects for College Students
Anna Demeo (College of the Atlantic)

**B-4 Community Sustainability, part 1**
Chair: Eban Goodstein
Terrill 207, panel
Social Capital and Walkability: Measureable Components of a Sustainable Community?
Shannon Rogers, Kevin Gardner, Cynthia Carlson (University of New Hampshire)
Characteristics of Communities in the Vicinity of Wind Farms
Soraya Cardenas, Kurt Holzhausen (University of Maine at Fort Kent)
Alternatives to an Overdrawn Edwards Aquifer Groundwater Source: Is Inland Desalination Powered by Waste Fuels a Solution?
Robert Larson, Ronald Stephenson (Texas State University-San Marcos)

**B-5 Tales of the Adirondacks: Cooperation and Conflict in Protected Area Land Management**
Chair: Ann Ruzow Holland
Livak 2, symposium
Participatory Planning for a Promised Land: Citizen-Led, Comprehensive Land Use Planning in New York’s Adirondack Park
Ann Ruzow Holland (Independent Community Planner, and SUNY Plattsburgh)
Narratives of Place, Class and Conflict in the Adirondack Park
Eric Holmlund (Paul Smith’s College)
Effects of Exurban Development on Wildlife in the Adirondacks
Michale Glennon, Heidi Kretser (Wildlife Conservation Society)
Divergent Views: Understanding Resident Attitudes about Private Land Development, Recreational Activities, and Environmental Issues Affecting the Adirondack Park
Stacy Rosenberg (SUNY Potsdam)
A Window of Opportunity: Examining the Creation of the Adirondack Park Agency within John Kingdon’s Multiple Streams Model
Erica Morin (Purdue University)

**B-6 eTour of Local Lands: An Interdisciplinary Tool to Connect Students and Place-based Research**
Chair: John Harris
Jeffords 112, symposium
Incorporating eTour in Student Assignments and Wetland Research
John Harris, Catherine Koning (Franklin Pierce University)
Expanding eTour to Include Documentary Films on Environmental and Community-Based Topics
Melinda Jette (Franklin Pierce University)
Using eTour to Highlight the Work of the Monadnock Archaeological Project
Robert Goodby (Franklin Pierce University)
Using eTour to Showcase Student Sustainability Efforts on the Rindge Campus
Michelle Comeau (Franklin Pierce University)
Using eTour to Highlight Adventure Recreation Opportunities in the Monadnock Region and Beyond
Doug Carty (Franklin Pierce University)

**B-7 Artists and Environmental Scientists: Opportunities for Skill-Sharing and Collaborations, part 1**
Chair: Jennifer Joy Pawlitschek
Chittenden Bank Room, panel
“The Physics of Love”: Using Theatre to Spread Environmental Knowledge and Motivate Change
Jennifer Joy (Independent Performing Artist and Writer)
Ecomusicology: Prospects for Interdisciplinary Collaboration
Aaron Allen (University of North Carolina at Greensboro)
Collaborations between Artists and Engineers at Alfred University
Diane Cox (New York State College of Ceramics at Alfred University)
Spirit of Place
Lamont Hempel (University of Redlands)

**B-8 Agency Perspectives: The U.S. Marine Mammal Commission**
Chair: Richard L. Wallace
Williams Family Room, symposium

**Conservation in the Face of Crisis**
Timothy J. Ragen (Executive Director, Marine Mammal Commission)
**Discussants:** Susan G. Clark (Yale University) and Richard L Wallace (Ursinus College)

**B-9 ESS Program Design and Assessment, part 1**
Chair: Jeff Ayres
Terrill 308, panel

**Starting an Interdisciplinary Program at a Liberal Arts College in Vermont: Environmental Studies at Saint Michael’s College**
Valerie Banschbach, Jeff Ayres, Greg Delanty, Bret Findley, Richard Kujawa (Saint Michael’s College)

**Environmental Science at Dalhousie University, an Evolving Curriculum**
Tarah Wright, Katja Munroe Belfry, Susan Gass (Dalhousie University)

**Navigating Interdisciplinary Waters: Resources and Workshops for Interdisciplinary Scholars**
Helen Doyle (Stanford University)

**B-10 Urban Environmental Pedagogies: Bringing Theory to Practice, part 1**
Chair: Patrick Hurley
Jost Foundation Room, panel

**A Tale of Two Cities: Urban-Placed Pedagogies in Roxbury and Detroit**
Richard Peterson (University of New England)

**Beyond a Trip to the Aquarium**
Alison Glassie (University of Rhode Island)

**Diversity and Engagement in Alternative Food Practice: Community Gardens in Vancouver, BC**
Darlene Seto (University of British Columbia)

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**12:45 pm: Lunch & Roundtable Discussions**
Mount Mansfield Dining Room

*Roundtable descriptions begin on p. 18.*

**What is a Roundtable?**
Roundtables are open discussions to which all conference attendees are welcome. They are largely informal discussions around a theme and occur during mealtimes in a relaxed setting. They offer a chance to generate ideas, learn about new topics, and meet people with shared interests. Tables will be marked clearly in the meal area and dialogue will be facilitated by the host listed in the program book. Please feel free to join any of these discussions, whether or not you are participating in the meal.

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**Ursinus College Congratulates AESS Conference Presenters**
Martina Dzuna 2011
Vinny Dombay 2011
Julia Bull 2012
R-1 Easing Work-life Complexity at AESS: How do we Support Parents and other Caregivers at Environmental Conferences?
Coordinator: Eve Vogel (University of Massachusetts, Amherst)
An increasing number of academics and environmental professionals are primary caregivers of children, elderly parents, or others. How can AESS support people who face significant work-life complexity in order to attend? This roundtable will be a brainstorming and initial planning discussion about how to build a support system for conference attendees who are also caregivers with limited budgets and time. Are child-friendly field trips a possibility? Should we encourage AESS and other associations to subsidize caregivers’ extra costs? Come with your ideas, experiences and knowledge, and be prepared to think about what small but significant support we can begin to put together.

R-2 A Discussion of Environmental Leadership
Coordinator: Deborah Rigling Gallagher (Duke Environmental Leadership Program, Nicholas School of the Environment, Duke University)
What is environmental leadership? How can it be applied to address intractable problems such as climate change, to confront complex management challenges such as developing a hydrogen economy, or to remedy injustices such as environmental refugees? Deb Gallagher is the editor of the forthcoming SAGE Reference Handbook on Environmental Leadership.

R-3 The U.S. Flood Control Program at 75
Coordinator: Peter Black (SUNY College of Environmental Science and Forestry)
Recent, recurring, and increased magnitude floods challenge long-held and erroneous concepts of flood control. This discussion focuses on the environmental issues related to the U.S. Riverine Flood Control Program. For the past 75 years, United States floods have caused increasing property damage with growing fiscal loss. Reasons include inattention to fundamental principles of physics, hydrology, and ecology. Existing programs encourage and enable investment in flood plains while violating a variety of natural principles. An alternative approach is presented that would enable and celebrate natural floods, managing their ecological and hydrological values and not attempting to control them.

R-4 Endangered Species Protection in the U.S.
Coordinator: Joe Roman (University of Vermont)
The first listed species to make headlines after the Endangered Species Act was passed in 1973 was the snail darter; a three-inch fish that stood in the way of a massive dam on the Little Tennessee River. When the Supreme Court sided with the darter, Congress changed the rules. The dam was built, the river stopped flowing, and the snail darter went extinct on the Little Tennessee, though it survived in other waterways. A lot has changed since the 1970s. This roundtable discussion will cover the history of U.S. endangered species protection and the people working to save threatened species. The discussion will be based on Joe Roman’s book Listed: Dispatches from America’s Endangered Species Act. Roman explains how preserving biodiversity can help economies and communities both thrive.

R-5 Launching our ESS students Toward Meaningful Livelihoods
Coordinator: Ibit Getchell (University of Vermont)
College offers students knowledge, experience, and skills through courses, study abroad, service learning, and extracurricular activities. Crossing the threshold to the world beyond college is daunting, with so many directions ESS students can go and high unemployment rates in all sectors. What can we do programatically and as advisors to support students out the door and into rewarding lives and work? This discussion will offer a chance to share ideas and approaches for counseling today’s ESS graduates entering the work force in challenging times.
2:00 pm: Session C

C-1 Pedagogy of Place: Seeing the Forest for More Than its Trees
Chair: Sue Van Hook
Jeffords 110, symposium
Introduction to the North Woods at Skidmore College
Sue Van Hook (Skidmore College)
Helping Students See the Forest for the Trees
Josh Ness (Skidmore College)
The Pedagogy of Place: Literature for the Northwoods
Michael Marx (Skidmore College)

C-2 Confronting Complexity in Vermont
Chair: Carrie Pucko
Jost Foundation Room, panel
The Synergistic Effects of Multiple Anthropogenic Forces on the Forests of the Green Mountains, Vermont
Carrie Pucko, Brian Beckage (University of Vermont)
Confronting the Complexity of Sharing Land Information: A Vermont Neighbor Network Sharing Land Stories
Keith McDade (Green Mountain College)
Vermont Climate Change Indicators
Alan Betts (Atmospheric Research)
Climate Change and Environmental Issues in the Media: a Vermont Strategy
Alan Betts (Atmospheric Research)

C-3 Environmental Justice: Ethics, Race, Rights, part 1
Chair: Kimberly Smith
Terrill 108, symposium
Bringing Race into Environmental Ethics
Kimberly Smith (Carleton College)
Environmental Justice, Hybrid Knowledge Systems, and the Restoration of Bio-cultural Diversity in North America
David Tomblin (Virginia Tech)
Green Infrastructure Implementation as an Alleviation of Environmental Injustices?: A Case Study of Syracuse, NY
April Baptiste (Colgate University)

C-4 Confronting Complexity through the Policy Perspective
Chair: Chad McGuire
Williams Family Room, symposium
Confronting Complexity through the Policy Perspective: What shapes and drives our social institutions when change is the norm—legal considerations
Chad McGuire (University of Massachusetts, Dartmouth)
Confronting Complexity through the Policy Perspective: What shapes and drives our social institutions when change is the norm—social considerations
Michael Goodman (University of Massachusetts, Dartmouth)
Confronting Complexity through the Policy Perspective: What shapes and drives our social institutions when change is the norm—economic considerations
Devon Lynch (University of Massachusetts, Dartmouth)

C-5 A Role for Privilege in Complexity Theory: The Contributions of William Freudenburg
Chair: Debra Davidson
Livak 1, symposium
Jack Manno (SUNY College of Environmental Science and Forestry)
The Said and the Unsaid: Disproportionality and How it is Supported through Discourse
Debra Davidson (University of Alberta)
Environmental Justice and Disproportionality: Exploring a Freudenburgian Perspective
Mary Collins (University of California, Santa Barbara)
Attitudes and the Three Fixes for Environmental Problems
Thomas Heberlein (University of Wisconsin–Madison)

C-6 ESS Pedagogical Issues, part 1
Chair: Richard L. Wallace
Livak 2, panel
Teaching Interdisciplinary Critical Thinking in
FRIDAY, JUNE 24

Environmental Studies: Lessons from Carson and Leopold
Richard L. Wallace (Ursinus College)

Environmental Science Curricula in a Complex World
Richard Shearman (Rochester Institute of Technology)
Bringing Real World Relevance into Environmental Science Education
Mara Chen (Salisbury University)
Out of the Classroom into the Community: Farmers, Farming and The Food System in Eleuthera
Sarah Gardner (Williams College)
Simulations and Video of Landfill Construction, Operation, and the Removal of Contaminants by Plants
Robert Beauchamp (University of Maryland University College)

C-7 Sustainability Frontiers: Models, Meanings, Manipulations, part 1
Chair: Glenn Weinberg
Jeffords 127, symposium
Contested Meanings, Applications, and Aspirations of Sustainability
Curt Gervich (SUNY Plattsburgh)
Impostors of Sustainability
Glenn Weinberg (City University of New York)
EcoTipping Points: Sharing Lessons from Success Stories to Teach Systems Thinking for Sustainability
Gerald Marten (University of Hawaii)
NRC Committee on Incorporating Sustainability into the US Environmental Protection Agency
Bernard D. Goldstein (University of Pittsburgh Graduate School of Public Health)

C-8 Information Dissemination: Developing Green Tools
Chair: Jon Isham
Jeffords 112, panel
Eco Heroes and Eco Villains: An Archetypal Analysis of Characters in Environmental Films, 1950-2010
Susan Stein, Candice Roberts (Drexel University)
Plants, Darwin, and Sustainability
Mary Stark (Central College)
As Seen from Space: Satellite Imaging and Environmental Perception
Matthew Bower (University of North Texas)
Virtual Energy Submetering: Measuring Energy Use, Assessing Strategies for Conservation
Glen Stevens, Chekka Lash (Ferrum College)

C-9 Overcoming the Challenges of Multi-X Collaborations
Chair: Jeff Frolik
Terrill 308, panel
Multi-University Systems Education (MUSE)
Jeff Frolik (University of Vermont), Paul Flikkema (Northern Arizona University), Donna Rizzo (University of Vermont)
The Colleges of the Fenway’s Environmental Science and Sustainability Collaboration: Overcoming Challenges and Celebrating Successes in Year Eight
Henderson Pritchard, Jack Duggan (Wentworth Institute of Technology)
Complex Learning: Foundations in ESS
Janelle Schwartz, Joelle Underwood (Loyola University New Orleans)
The Role of Translational Activities in Promoting Multi-X Collaborations
Mark Brunson (Utah State University)
A Case for Integration: The Deepwater Horizon Oil Spill
Andrew Guswa, Elisabeth Armstrong, Michael Barresi, Ann Leone, Catherine McCune (Smith College)

C-10 Confronting Complexity with Concept Maps
Chair: Jim Proctor
Terrill 207, panel
The Bard Concept Mapping Experience: Where We Are, and Where We Go from Here
Gautam Sethi, Caroline Ramaley (Bard College Center for Environmental Policy)
Confronting Interdisciplinarity in Environmental Studies via Concept Maps
Jim Proctor (Lewis & Clark College)
Evaluating Concept Mapping: Results of an Empirical
Assessment
Jennifer Bernstein (Montana State University), Jim Proctor (Lewis & Clark College)

C-11 The Legacies of Aldo Leopold: Confronting the Ethical and Spiritual Complexities of the Land Ethic
Chair: Jane Caputi
Chittenden Bank Room, symposium

Feeding Green Fire
Jane Caputi (Florida Atlantic University)
Dramatizing Ecology: Aldo Leopold’s Green Fire Narrative
Gavin Van Horn (Center for Humans and Nature)
“Thinking like a Mystic”: The Unacknowledged Legacy of P.D. Ouspenksy’s *Tertium Organum* on the Development of Leopold’s “Thinking like a Mountain”
Ashley Pryor (University of Toledo)
Re-Experiencing the Land Ethic: Beyond Eco- and Anthropocentrism
Bryan Bannon (Wesleyan University)

3:30 pm: Coffee and snack break
Livak Fireplace Lounge

4:00 pm: Session D

D-1 Religion, Ethics, Peace: A Golden Braid
Chair: Kit Anderson
Jeffords 110, symposium

The Environment as an Bridge to Peace in the Middle East
Michael M. Cohen (Arava Institute for Environmental Studies)
The Relevance of Metaphysics to Animal Liberation and EcoFeminism
Jennifer McErlean (Siena College)
Two Not-Much-Discussed Problems about Ethics & Eating
Tyler Doggett (University of Vermont)

D-2 Floods and Water Management
Chair: Robert Mason
Terrill 108, symposium

Using Rental Properties to Better Understand the Subjective Risks of Flooding
James Meldrum (University of Colorado at Boulder)
Floods, Drought, Flexible Flows, and Climate Contingencies on the Delaware River
Robert Mason, Lynn Mandarano (Temple University)
Confronting Complexity in Water Resources Management through Paradigm Change: Regional Water Transfer or Ecosystem Based Management? An Analysis of Interlinking of River Project in India
Nidhi Pasi, Richard Smardon (SUNY College of Environmental Science and Forestry)
Designing a Surface-water Allocation Policy that Meets Stakeholder Needs
Emily Schieffer (Duke University)

D-3 Communities & Conservation: Leadership and Engagement
Chair: David Cherney
Livak 1, symposium

Environmental Saviors? The Effectiveness of Nonprofit Organizations in Greater Yellowstone
David Cherney (University of Colorado–Boulder)
Restorative Leadership: Remembering the Primacy of Nature in Corporate Responsibility
Seana Steffan (The Restorative Leadership Institute)
Community-Based Wood Biomass Energy: Decision Support through Participatory Research and Service Learning
Cecilia Danks, Kimberly DePasquale, Lini Wollenberg, Matt Peters, Susannah McCandless (University of Vermont)
Groundwater in the Desert: Phoenician Policy, Growth, and Land Fragmentation
Abigail York, Sainan Zhang, Christopher Boone (Arizona State University)

D-4 Dealing with Complexity: Perspectives from Developing Countries
Chair: Maria Aileen Leah Guzman
Livak 2, panel

Renewable Energy in the Philippines: A Means to Achieving
Sustainable Development in the Philippines  
Jude Estiva, Maria Guzman (Aparri Engineering LLC)

2009 Floods of Metro Manila: A Showcase of Man’s Conflict with the Environment  
Maria Aileen Leah Guzman (Aparri Engineering LLC)

Michael Schoon (Arizona State University)

Sarah Darkwa (University of Cape Coast, Ghana)

Waste Management Potentials in Enugu-Nigeria for Environmental Sciences and Studies  
Godfrey Uzochukwu (North Carolina A&T State University)

D-5 Climate Change in Communities: Mitigation, Adaptation, Resilience  
Chair: David Hassenzahl
Jeffords 127, panel

Society Knowledge, Assumptions and Preferences Regarding Climate Change in Nevada  
William Smith, Zhongwei Liu, Ahmad Safi (University of Nevada, Las Vegas)

Preparing Communities for an Uncertain Future in Light of a Changing Landscape and Climate: A Multidisciplinary Approach to Effective Adapation  
Michael Simpson (Antioch University New England), James Gruber (Antioch University New England), Latham Stack (Syntectic International, LLC), Robert Roseen (University of New Hampshire Stormwater Center), Thomas Crosslin (Climate Techniques, LLC)

Creating a Learning Community for Solutions to Climate Change (CAMEL)  
David Hassenzahl, Ginny Brown (National Council for Science & the Environment)

D-6 Food Systems: Theory and Practice, part 2  
Chair: Tom Hudspeth

The Edible Campus: An Employee-centric Food System  
Jeanine Kopaska Broek, Steve Fortenberry (Goodness Grows, Inc.)

From Fair Trade to Food Justice: Action Research Results and Strategies to Move from Hunger Towards Sustainable Livelihoods in Nicaragua  
Christopher Bacon (Santa Clara University)

Accessing Local, Organic Food in Burlington, Vermont, and Havana, Cuba  
Tom Hudspeth (University of Vermont)

Women’s Sense of Farming: An Ethnographic Study of Ecofeminism in Sustainable Farming and Local Food  
Tatiana Abatemarco (University of Vermont)

D-7 Artists and Environmental Scientists: Opportunities for Skill-Sharing and Collaborations, part 2  
Chair: Jennifer Joy Pawlitschek
Chittenden Bank Room, panel

Eco-Plays and the Green Theater Revolution  
Jeremy Pickard (Superhero Clubhouse)

Positive Feedback: Art and Climate Change  
Lisa Phillips (Columbia University)

Emerging and Hybrid Art Forms: Collaboration in the Arts and Sciences  
Julia Christensen (Oberlin College)

Uniting Art and Biology to Conserve Our Coral Reefs  
Courtney Mattison (Brown University)

D-8 Taking Stock: An Evaluation of PES Programs  
Chair: Gautam Sethi
Jost Foundation Room, panel

Forest Conservation and Slippage: Evidence from Mexico’s National Payments for Ecosystem Services Program  
Jennifer Alix-Garcia (University of Wisconsin), Elizabeth Shapiro (Duke University), Katharine Sims (Amherst College)

Reconciling Scarcity and Indigenous Values
Guatam Sethi (Bard College Center for Environmental Policy)
New Strategies for Managing the Environment in Oaxaca, Mexico: the Foro Oaxaqueño del Agua
Monique Segarra (Bard College Center for Environmental Policy)
Mandates, Management or Money? Comparing Alternative Approaches to Conservation
Kathy Baylis (University of Illinois), Jordi Honey-Roses (University of Illinois), Maria Isabel Ramirez, (UNAM-Morelia)

D-9 Coming Clean: Environmental Information Disclosure in the United States
Chair: Michael Kraft
Williams Family Room, symposium

Coming Clean: Environmental Information Disclosure in the United States
Michael Kraft (University of Wisconsin-Green Bay)
Coming Clean in the Classroom
Walter A. Rosenbaum (University of Florida)
Nanoremediation: Are There Equity Concerns?
Mary Collins (University of California, Santa Barbara)
US Citizens Acceptance (or Rejection) of the Scientific Consensus on Climate Change: Is more Scientific Knowledge the Answer?
Rose Njoroge (Florida State University)
Massey Energy Company in Education: Building Pro-Coal Attitudes in a Coal-Devastated Region
Heather Farley, Michael Cook, Russell Crawford (Northern Arizona University)

5:45 pm: AESS Business Meeting
Chair: Kimberly Smith, AESS President
Livak 1

6:30 pm: ESS Junior Scholars Reception
Brennan’s (Davis Center first floor)
A gathering for undergraduate and graduate students and emerging scholars in the fields of ESS.

6:30 pm: Dinner on your own or an optional dinner buffet
Across from the Marketplace, second floor

7:30 pm: Vermont Film Premier Green Fire: Aldo Leopold and a Land Ethic for Our Time
Hosts: Curt Meine, Director of Conservation Biology and History (Center for Humans and Nature), Gary K. Meffe, Wildlife Ecology and Conservation (University of Florida), Steve Dunsky (film director)
Silver Maple Ballroom

Green Fire, the first full-length, high-definition documentary film ever made about legendary environmentalist Aldo Leopold, highlights Leopold’s extraordinary career, tracing how he shaped and influenced the modern environmental movement. The film seeks to provide viewers with a basic historical biography of Aldo Leopold while simultaneously surveying the contemporary relevance and creative evolution of the conservation ethic that Leopold defined.

The film will be followed by a panel discussion featuring on-screen narrator and Leopold biographer Curt Meine, Green Fire co-director Steven Dunsky, and conservation biologist and author Gary Meffe.
SATURDAY, JUNE 25

7:30 am: Breakfast  
Mount Mansfield Dining Room

8:00 am: JESS Editorial Board Meeting  
Handy Family Room

8:00 am: Poster Session Set-up  
Livak Fireplace Lounge and Sugar Maple Ballroom

8:00 am: Roundtable Discussions  
Mount Mansfield Dining Room

R-6  Confronting Complexity Together: Promoting Research Collaboration among AESS Members  
Coordinator: Jessica J. Kelly (Millersville University)  
Increasingly, multi-disciplinary and multi-institutional research teams are confronting the complexity of major issues in environmental studies and sciences. The benefits of such collaboration include: maximizing individual talents and training, contributing to a rapidly growing body of knowledge, and fostering scholarship opportunities among the junior members of our organization. We invite junior and senior scholars interested in networking and brainstorming research topics for confronting complexity in environmental studies and sciences.

R-7  The Louisiana Gulf Coast Region and Estuaries Experience Tragedy  
Coordinator: Martha A. Madden, Former Secretary of the Louisiana Department of Environmental Quality  
Natural wetland loss is occurring among Louisiana’s nine hydrologic basins, ranging from 64 acres per year in the Atchafalaya Basin to 7,104 acres per year in the Barataria Basin. Four processes inhibit wetland restoration and recovery: human-induced impacts, weather-induced impacts, commercial-induced impacts, and economic impacts. Months after the U.S. government declared the waters in the Gulf of Mexico safe, thick layers of oil have been found along Louisiana coastal marshes. We will discuss current actions and barriers to progress in wetland recovery after the Deepwater Horizon oil spill.

R-8  Teaching Social Science Research in Environmental Studies and Sciences  
Coordinator: Tania Schusler (Antioch University New England)  
Social science research offers essential tools for understanding environmental problems and examining possibilities for solving them. Yet many ESS curricula offer only research training in the ecological and physical sciences. The purpose of this roundtable is to discuss teaching social research methods in ESS. We will encourage participants to describe their experiences teaching social science research to graduate and undergraduate students, discuss challenges encountered and how to overcome them, and share specific teaching strategies, tools, and resources.

R-9  The Role of the Humanities in Environmental Studies  
Coordinator: Adrian Ivakhiv (University of Vermont)  
For those who work in the environmental humanities, the question about whether there’s a role for the humanities in environmental studies is (to put it gently) a “no-brainer.” It’s surprising how often the case has to be made, however, for others. This discussion is intended both for those who already do environmentally relevant work in one of the humanities fields (philosophy, history, religious studies, literary and cultural studies, the arts, etc.) and for those who would like to incorporate more humanities content in their teaching, research, or programs.
9:00-10:30 Session E

E-1 Population-Level Effects of Acoustic Disturbance on Marine Mammals, Part 1
Chair: Erica Fleishman
Livak 1, symposium

Integrating Conceptual and Practical Approaches to Assessment of Disturbance
Erica Fleishman (University of California, Davis), Bill Streever (BP Exploration [Alaska] Inc.)
A Conceptual Framework for Evaluating the Effects of Sound on Marine Mammal Populations
John Harwood (University of St Andrews), Erica Fleishman, Daniel Costa (University of California Santa Cruz), Peter Tyack (Woods Hole Oceanographic Institution), Michael Weise (U.S. Office of Naval Research)
Translating Conceptual to Parameterized Models for Multiple Taxonomic Groups
Len Thomas (University of St Andrews), Rob Schick (Duke University), James Clark (Duke University), John Harwood (University of St Andrews)
Foraging and Vital Rates of Elephant Seals in Different Scenarios of Natural and Human Disturbance
Daniel Costa, Jen Maresh, Patrick Robinson, Lisa Schwarz (University of California, Santa Cruz)

Karen Akerlof, Edward Muibach (George Mason University)
Climate Justice and Energy Problems: Intergenerational Concerns
Edward Abplanalp (Illinois Central College)
The Failed Politics of Climate Change: Fundamental Sources and Practical Alternatives
Paul Harris (Hong Kong Institute of Education)

E-2 Climate Change Perspectives: The International and Inter-generational
Chair: Paul Harris
Terrill 108, panel

Climate and Communities in Crisis: Ecological and Cultural Complexities in the Monarch Butterfly Biosphere Reserve, Michoacan, Mexico
Laci Gerhart (University of Kansas)
Solar Radiation Management, Geoengineering, and International Law: The Implications of Intergenerational Equity
William Burns (Monterey Institute of International Studies, Middlebury College)
What Members of the General Public Prefer to Call “Climate Change”

Karen Akerlof, Edward Muibach (George Mason University)
Climate Justice and Energy Problems: Intergenerational Concerns
Edward Abplanalp (Illinois Central College)
The Failed Politics of Climate Change: Fundamental Sources and Practical Alternatives
Paul Harris (Hong Kong Institute of Education)

E-3 Social Responses to New Renewable Energy Technologies and Infrastructure, part 1
Chair: Stewart Fast
Jeffords 112, panel

Responses to New Renewable Energy Technologies in the “Land o’ Lakes” Region of Eastern Ontario
Stewart Fast (University of Ottawa)
Constructing Sustainable Biofuels: Governance of the Emerging Biofuel Economy
Rob Bailis (Yale School of Forestry and Environmental Studies)
Governance of Wind Energy in the Marine Environment: the Massachusetts Experience
Enid Kumin (Antioch University New England)
Learning from Public Responses to Wind Power Development in New England
Cameron Weimar (Catholic University of America)

Karen Akerlof, Edward Muibach (George Mason University)
Climate Justice and Energy Problems: Intergenerational Concerns
Edward Abplanalp (Illinois Central College)
The Failed Politics of Climate Change: Fundamental Sources and Practical Alternatives
Paul Harris (Hong Kong Institute of Education)

E-4 Environmental Collaboration Outside the Classroom, part 2
Chair: Debra Davidson
Jost Foundation Room, panel

Packaging Research: A College Class Advocates for Safe and Sustainable Foods and Food Packaging
Nancy Ross (Unity College)
Applying Sustainability to the Complexities of Concrete Design
Jack Duggan (Wentworth Institute of Technology)
Linking Learning to Action: Translating Student Research into Policy Implementation
Leon-C Malan, Laura Alexander, Jennifer White, (Colby-Sawyer College)
Universities in Service of the Community: Experiences in
New York City
Hildegaard Link, Jessica Miller, Yehuda Klein (City University of New York)

E-5 Sustainable Behavior: Psychological and Environmental Impacts
Chair: Beth Karlin
Williams Family Room, symposium
National Trends in Public Concern about Coastal and Ocean Environments
Thomas Safford (University of New Hampshire)
Nature Relatedness: Human-Nature Connections and the Happy Path to Sustainable Behavior
Elizabeth Nisbet (Carleton University)
Confronting Complexity in Energy Conservation: Differences between Exposure, Actions, and Impacts
Beth Karlin, Katrin Escobar (University of California, Irvine)
Using the Theory of Planned Behavior to Explore Energy Conservation in a University Setting
Katherine McComas, Mary Beth Deline (Cornell University)

E-6 ESS Pedagogical Issues, part 2
Chair: Michelle McCauley
Livak 2, panel
Avoiding the Downer Class when Teaching Environmental Psychology
Michelle McCauley (Middlebury College)
Pass It On: Empowering Students to Educate Others on Climate Science Basics
Leah Joseph (Ursinus College)
Taming the Beast: Imposing Theoretical Frameworks on Broad Environmental Science Survey Courses
Syma Ebbin (Connecticut Sea Grant/University of Connecticut)
Using Systems Simulations for Discovery Learning about Accumulations
Krystyna Stave (University of Nevada–Las Vegas)
Teaching Supradisciplinarily: Complexity Enhancement versus Disciplinary Integration
Will Focht (Oklahoma State University)

E-7 Sustainability Pedagogy & Practice
Chair: Catherine Kleier
Jeffords 127, panel
Modeling Sustainability: A Perfect Storm of Culture Change, General Education, and Action
Catherine Kleier (Regis University)
Developing Sustainability Leaders that Embrace Complexity: Applying a Sustainability Leadership Framework at the University of Michigan
Mike Shriberg (University of Michigan)
Building Green Leadership through Campus Sustainability Project Teams: Green Structures for Linking Students, Faculty, and Staff
David Whiteman (University of South Carolina)
Calculation of Personal Consumption of Water, Energy, and Carbon Footprint
Orin Gelderloos (University of Michigan–Dearborn)

E-8 Complexifying the Vision: Increasing Hospitality toward Different Ways of Knowing in ESS, part 1
Chair: Nancy Rich
Terrill 207, symposium
Restoring Relationships: Interviews with Faculty and Elders on Bringing Indigenous Ways of Knowing into Undergraduate Environment-related Education
Nancy Rich (Antioch University New England)
Communication for Sustainability Educators
Adrienne Cachelin, Karen Paisley, Edward Ruddell (University of Utah)
American Rural Communities and Sustainability Studies
Martha Vanderwolk (Goddard College)

E-9 A Place for History in Environmental Studies, part 2
Chair: Eric Mogren
Jeffords 110, symposium
Engaging the Environment and One Another: The Role of the Program Study and Discussion Division of the USDA in Addressing Complex Issues
Timothy Shaffer (Cornell University)
Wind Energy: Harnessing History to Meet Demand
Daniel Sholler (University of Pennsylvania)
Marc Landry (Georgetown University)

E-10 Teaching Climate Change Across the Curriculum Within and Outside of the Classroom
Chair: Janet Fiskio
Chittenden Bank Room, symposium

Using Real-time Feedback on Resource Flows in the Built Environment to Engage, Educate, Motivate and Empower Climate Stewardship
John Petersen (Oberlin College)
Integration of Climate Change Using Different Pedagogical Tools in Environmental Studies Courses at Oberlin
Md Shammin (Oberlin College)

A Wayfinding Course in Climate Change
Elizabeth Davey (Tulane University)

Ethics, Equity, Narratives: Teaching Climate Change through the Humanities
Janet Fiskio (Oberlin College)

10:30 am: Coffee and snack break
Livak Fireplace Lounge

11:00 am –12:30 pm: Session F

F-1 Population-Level Effects of Acoustic Disturbance on Marine Mammals, Part 2
Chair: Erica Fleishman
Jeffords 110, symposium

Potential Effects of Acoustic Disturbance on Foraging Behavior, Body Condition, and Demography in North Atlantic Right Whales
Robert Schick (Duke University), Scott Kraus (New England Aquarium), Rosalind Rolland (New England Aquarium), Peter Corkeron (New England Aquarium), Philip Hamilton (New England Aquarium)

Long-term Population Monitoring of Blainville’s Beaked Whales (Mesoplodon densirostris) using Passive Acoustics
David Moretti, Elena McCarthy, Nancy DiMarzio, Susan Jarvis, Jessica Ward (Naval Undersea Warfare Center)

Potential Application of the PCAD Approach by Management and Regulatory Agencies
Michael Weise (U.S. Office of Naval Research), Sam Simmons (Marine Mammal Commission)

F-2 How Mass Media Confront Complexity When Covering Climate Change, part 2
Chair: Maxwell Boykoff
Williams Family Room, panel

Explanation and Value Judgments in Media Communication of Climate Model Science
Karen Akerlof, Katherine E. Rowan, Dennis Fitzgerald, Andrew Y. Cedeno (George Mason University)

Lost in Translation: Eliminating Uncertainty from Climate Science
Syma Ebbin (Connecticut Sea Grant/University of Connecticut)

Ursula Rick (American Geological Institute), Maxwell Boykoff (University of Colorado–Boulder), Roger Pielke, Jr. (University of Colorado–Boulder)

F-3 Social Responses to New Renewable Energy Technologies and Infrastructure, part 2
Chair: Stewart Fast
Jeffords 112, panel

Is Concern for Global Warming Positively Related to Support for Wave Energy Development: A Case Study from Oregon
Maria Petrova Stefanovich (Oregon State University)

The Importance of Public Attitudes as a Barometer for Sustainable Energy Design and Deployment
Elizabeth Graffy (University of Wisconsin-Madison)

Not In My Back… Fort? Wind Energy and the Rural Movement: An Ontario, Canada Case Study
James Knott, Stephen Hill (Trent University)
**F-4 Community Sustainability, part 2**
Chair: Shirley Vincent
Terrill 207, panel
The Presence of Diversity in Campus Sustainability Assessments
Andrea Webster (SUNY College of Environmental Science and Forestry)
EcoTipping Points: Turning Urban Decline to Restoration
Gerald Marten (University of Hawaii)
Localization: A Response to Environmental Limits with Embedded Benefits
Raymond De Young (University of Michigan)

**F-5 The World of Environmental Policy-Making, part 1**
Chair: Hugh Miller
Livak 1, symposium
Linearity to Complexity: A New Paradigm for Regulatory Policy
Martha Richmond, John Berg (Suffolk University)
Conflict and Cooperation: Environmental Decision-Making in Local Implementation of Agenda 21
Peter Klein (Brown University)
Evolving Concepts of Sustainability in Environmental Policy
Monty Hempel (University of Redlands)
At Environmental Agencies It’s Politics All the Way Down
Hugh Miller (Florida Atlantic University)

**F-6 Reports from the Field: Newly-Minted PhDs Relay the Real Deal**
Chair: Kate Darby
Jeffords 127, panel
Outside of Academia: Fellowships in the Federal Arena
Jennifer Riddell (American Association for the Advancement of Science)
Piecing Together a Career: Reflections by One Half of a Dual-Career Couple
Mark Neff (Allegheny College)
Sharing the Passion: Strategies for Obtaining Effective Mentoring during the Early Career
Jessica Kelly (Millersville University)
Navigating Transitions: An Early Career Perspective on Academia
Patrick Hurley (Ursinus College)
A Department Chair’s Perspective on Working with New PhDs
Terrence Bensel (Allegheny College)

**F-7 Artists and Environmental Scientists: Opportunities for Skill-Sharing and Collaborations, part 3**
Chair: Jennifer Joy Pawlitschek
Chittenden Bank Room, panel
Using Art to Frame Environmental Discussions: The Purchase College Experiment
Ryan Taylor (SUNY Purchase College), Heather Saunders (University of Toronto)
Art, Ecology and Community
Cameron Davis (University of Vermont)
Interpreting Science through Environmental Film and Art
Dyanna Smith (Antioch University New England/Red Eft Project)
Fine Grain: Visual Immersion in the Food System
Abram Kaplan (Denison University)

**F-8 Complexifying the Vision: Increasing Hospitality toward Different Ways of Knowing in ESS, part 2**
Chair: Nancy Rich
Terrill 308, symposium
One World, Many Views: Teaching Cultural Complexity in Environmental Studies
Katharine Anderson (University of Vermont)
Borlaug, Hernández Xolocotzi, and the Role of Scientific and Indigenous Knowledge in Mexican Agriculture
Maxine Ewankow (Antioch University New England)
Experimenting Toward an All-encompassing “We”
Sabrina Fu (University of Maryland, University College)
Indigenous Knowledge, Environmental Perceptions, and Mapping
F-9 ESS Program Design and Assessment, part 2
Chair: Ken Wilkening
Terrill 108, panel
When Planning and Serendipity Collide: Delights and Challenges of a New Environmental Studies Program
Kaye Savage, John Lane, Terry Ferguson (Wofford College)
Overcoming the Institutional Challenges of Merging an Academic Department and Interdisciplinary Environmental Science Program
Ronald Sundell, John Anderton (Northern Michigan University)
Authentic Assessment in a Professional Masters of Arts in Environmental Science Education
Kelly McConnaughay, Michelle Edgcomb, Sherri Morris, Wayne Evans (Bradley University)
Environmental Studies Meets Global Studies: Creating a Confluence of Synergies
Ken Wilkening (University of Northern British Columbia)

F-10 Urban Environmental Pedagogies: Bringing Theory to Practice, part 2
Chair: Patrick Hurley
Jost Foundation Room, panel
Outdoor Classrooms: Collaborating with a City Elementary School to Foster Urban Ecologists
Susan Mooney (Stonehill College)
Bridging the Human-Nature Gap by Teaching Environmental Methodology in an Urban Watershed
Rose Mckenney, William Teska, Micheal Behrens, Rebekah Mergenthal, Kevin O’Brien (Pacific Lutheran University)
Home of the Green Gear Shift
Michael Perez (Embry-Riddle Aeronautical University)
Developing and Sustaining Edible Urban Landscapes
Karin Warren (Randolph College)

F-11 Student Award Presentations
Chair: Cameron Weimar

Livak 2, symposium
Adaptation to Floods and Droughts in the Afram Plains, Ghana
Lucy Kafui Aku Adzoyi-Atidoh (Lincoln University), Samuel Nii Ardey Codjoe (Regional Institute for Population Studies)
Defunct Models of Pollution: Ocean Plastics and Body Burdens
Max Liboiron (New York University)
Exploring Market Based Incentives to Address Environmental Risk in Sub-Saharan Africa
John Fay (University of Cape Town Graduate School of Business)
Diversity and Engagement in Alternative Food Practice: Community Gardens in Vancouver, BC
Darlene Seto (University of British Columbia)
“We are not an Insurance:” Insurance as an Adaptation to Climate Threats in Poor, Urban, Informal South Africa
Moliehi Shale (University of Cape Town, Centre of Criminology)

12:30 pm: Break
Pick up box lunch for field trip at Davis Center entrance

1:00 pm – 5:30 pm: Field Trips
All trips leave from the Davis Center Oval. Vehicles and group leaders will be in numerical order.

S-1 Shelburne Farms Tour
Jen Cirillo, Director of Professional Development (Shelburne Farms)

S-2 Sustainable Food Production
Linda Berlin, Director, Center for Sustainable Agriculture (University of Vermont)

S-3 Ecotourism Development in Stowe, Vermont
Todd Comen, Professor of Hospitality and Tourism (Johnson State College)

S-4 Lake Champlain Aquatic Ecology
Ellen Marsden, Professor, Fisheries (University of Vermont)

S-5 UVM LEED Buildings Walking Tour
Michele Smith, Administrative Coordinator; Capital Planning
S-6 Sustainability Walking Tour of Burlington
Ed Antczak, Economic Development Specialist (City of Burlington)

S-7 Lower Winooski River Ecology and Conservation
Erin DeVries, Watershed Alliance Outreach Coordinator (University of Vermont/Sea Grant)
Lisa Dunn, Education Director, Winooski Valley Park District

S-8 Green Forestry at Jericho Research Forest
Bill Keeton, Associate Professor, Forestry (University of Vermont)

S-9 Shelburne Pond Canoe Trip
Alicia Daniel and Heather Fitzgerald, Field Naturalists and Lecturers, Environmental Studies (University of Vermont)

S-10 Ecology and Conservation of Vermont’s Floodplain and Clayplain Forests
Rose Paul, Director of Science and Stewardship, Vermont Office of The Nature Conservancy

S-11 Geology of the Lake Champlain Basin
Char Mehrtens, Professor and Stephen Wright, Senior Lecturer, Geology (University of Vermont)

S-12 Aerial Field Trips of Lake Champlain Basin
Ian Worley, Professor Emeritus of Environmental Studies (University of Vermont)

S-13 Environmental Justice Tour
Brian Tokar, Lecturer, Environmental Studies (University of Vermont)

S-14 Exploring Burlington’s Intervale
Tom Hudspeth, Professor, Environmental Studies and Natural Resources (University of Vermont)
Joyce Cellers, Development Coordinator, Intervale Center

S-15 Conserving Farms and Forests
Steve Libby, Executive Director, Vermont Rivers Conservancy, and Lecturer (University of Vermont)

S-16 Environmental Art Tour
Cami Davis, Artist, Lecturer, Art and Environmental Studies (University of Vermont)

S-17 Green Energy Tour
Richard Watts, Assistant Professor, Transportation Research Center; Community Development (University of Vermont)

S-18 Leadership in Burlington’s Green Business
Ashley Orgain, Sustainability Manager, Seventh Generation

5:30 pm: Break

6:30 pm: Poster Session and Reception
Livak Fireplace Lounge (see pp. 31-32 for descriptions)

7:30 pm: Evening Banquet
Silver Maple Ballroom
AESS awards presentation

Tribute to William Freudenberg
William R. Freudenburg, Ph.D., Dehlsen Professor of Environmental Studies at UC Santa Barbara, was an internationally known environmental sociologist, author, and lecturer. He spoke passionately for protection of rural communities and worked in the areas of risk, disaster, and natural resource development. Freudenburg was instrumental in founding the Association for Environmental Studies and Sciences and has left the organization a legacy of sharp insight, gentle humor, and humble compassion regarding the state of the earth.

Nature’s Grace: Locally-Grown Music from the Vermont Composers Project (Amity Baker, Artistic Director)
Social Band is a lively group of 20 singers based in Burlington, Vermont, known for its strong voices and joyful, high-quality performances. This year’s repertoire features specially commissioned choral pieces setting Vermont poetry to music by Vermont composers. The year 2011 has been declared as “the year of the composer” by Governor Peter Shumlin, recognizing that “local composers create music that is central to Vermont’s individuality.”
Poster Sessions

P-1 From Legal Conflict to Common Ground: Environmental NGOs and the U.S. Navy Share Their Perceptions of Engagement Efforts
Eleni Gesch-Karamanlidis (University of Rhode Island)

P-2 Alarmed but Not Acting: An Examination of the Inconsistency Between Beliefs and Behavior in Response to Climate Change
Kathryn Doherty (Antioch University New England)

P-3 Tuna-Dolphin-Bird Feeding Assemblages in the Galapagos Islands and Their Response to the Physical Characteristics of the Upper Water Column
Michelle Johnston, Julia O’Hern, Douglas Biggs (Texas A&M University), Edwin Pinto (Insituto Oceanografico de la Armada del Ecuador)

P-4 Ground Beetles as Indicators of Biodiversity
Robert Browne, Sarah Maveety, Katherine Riley (Wake Forest University)

P-5 Predicting Conflict over Scarce Resources: Chimpanzees (Pan troglodytes verus) and Fulbe Pastoralists
Brooke Massa (Duke University)

P-6 The Underrepresented Student’s Access to Sustainability in the Post-Secondary Education Experience
Andrea Webster (SUNY College of Environmental Science and Forestry)

P-7 Restoration Ethics: The Cutthroat Truth
Alexander Lee (University of Colorado–Boulder)

P-8 Impacts of Non-Point Source Nutrient Pollution and Water Turbidity Pulses on Threatened Acropora palmata (Elkhorn coral) Populations in Vega Baja, Puerto Rico

P-9 Communicating the Complexity of Biodiversity Associated with Agroecosystems
John Quinn (University of Nebraska-Lincoln), James Brandle (University of Nebraska-Lincoln), Ron Johnson (Clemson University)

P-10 Greasing a Solution to a Complex Problem: A College-Municipal Community Effort to Turn Used French Fry Oil into Biodiesel Fuel
Richard Bowden (Allegheny College), Joe Chriest (City of Meadville, PA), Christoffer Soff (City of Meadville, PA), Alessandra Trunzo, Sandra Wayman, Krystle Castillo, Samuel Elliot, Katie Flood, Lynette Gardner, Justin Gaudi, Peter Grella, Sarah Kane, Isis Lawson, Jessica Longobardo, Xi Lu, Kelsey Minto, Chas Moore-Seymore, Daniel Roth (Allegheny College)

P-11 Promoting Sustainable Communities: The Randolph College Permaculture Program
Karin Warren (Randolph College)

P-12 Enhancing Information Sharing and Decision-making Partnerships to Foster Multi-scale Capacity Building and Integration of Environmental Data for Stakeholders within the Lake Superior Basin
Ronald Sundell (Northern Michigan University), Robert Stewart (Lakehead University), Hilarie Sorenson (Lakehead University), Mike Michalek (Northern Michigan University)
P-13  Forging Partnerships between Municipalities, Environmental Agencies, and Undergraduate Institutions in Environmental Assessment and Remediation Projects: A Case Study of the Martins Pond Partnership
Jonathan Lyon (Merrimack College), Janet Nicosia (Martins Pond Association)

P-14  Improving Climate Education: A Geoscientifical and Psychological Collaboration
Paul Hackett (Emerson College), Julio Sepúlveda (Massachusetts Institute of Technology)

P-15  Community Garden Connections: Strengthening Community Resilience through Partnerships
Susan Baron, Libby McCann, Tania Schusler, Libby Weiland, Robin Colt (Antioch University New England)

P-16  Integrating Student Research into an Advanced GIS Course: Using a GIS Model to Determine the Natural Resource Value of Land in the Siena-Hudson Greenway
Katherine Meierdiercks, Rami AlyGad, Julian Carney, Jeni Casinelli, Nicholas DiRoma (Siena College)

P-17  The Co-Evolution of Sustainability Courses with a Campus Sustainability Program at University of Vermont
Ralph Stuart, Michelle Smith, Gioia Thompson, Stephanie Kaza (University of Vermont)

P-18  Sustainable Campus Development: Challenges and Opportunities
Jessica Mooney (Chatham University)

P-19  Analyzing Storm Surge and Sea Level Rise to Determine Coastal Vulnerability in Brunswick and Harpswell, Maine
Leah Wang, Phil Camill, Melissa Anson, Krista Bahm, Maryellen Hearn (Bowdoin College)

P-20  College Students’ Awareness of Endangered Species in the New York Capital Region: Prior Knowledge and Willingness to Take Action
Emily Merritt, Jean Mangun, Katherine Meierdiercks (Siena College)

P-21  Analysis of Suburban Forest Species Composition in Land-use Policies in Montgomery County, Pennsylvania
Vinnie Dombay (Ursinus College)

P-22  Suburban NTFP Gathering in the Philadelphia Metropolitan Area: Practices and Perspectives of Land Managers in Public Parks and Private Natural Areas
Martina Dzuna (Ursinus College)

P-23  Demonstration of a Discovery Learning Systems Simulation to Teach about Accumulations
Krystyna Stave, Heather Skaza, Ben Jurand (University of Nevada, Las Vegas)

P-24  Effects of Experiential Education in Environmental Sociology
Adelle Monteblanco, Joyce Nielsen (University of Colorado–Boulder)

P-25  The Importance of Campus Farming
Julia Bull (Ursinus College)

P-26  A Solar Thermal Energy Storage System for Rural Communities in India
Hufsa Ahmad, Jennifer Lee, Allie McDonnell, Andrew Xue (Harvey Mudd College), Julie Lapidus, (Scripps College) Niger Washington (Pomona College)

P-27  Dealing with Increasing Complexity: Does Postgraduate Distance Learning Assist the Environmental Professional?
Russell Souchek (Doane College)
7:30 am: Breakfast  
Mount Mansfield Dining Room

8:00 am: AESS Executive Council Meeting  
Handy Family Room

9:00 am: Session G

G-1 Career Advising in ESS: Demystifying Green Job Counseling  
Chair: Mark O’Gorman  
Jeffords 112, panel  
The Role of Academic Advising in Career Counseling for ESS Students  
Kim Marsalla (Skidmore College)  
Social Media Tools, the Internet, and Green Jobs  
Keely Maxwell (Franklin and Marshall College)  
Practicum and Green Jobs: A Student’s First Step into Environmental Careers  
Mark O’Gorman (Maryville College)

G-2 Perspectives on Invasive Species  
Chair: Glenn Sandiford  
Williams Family Room, panel  
Exploring the Sustainability of the Funding Network for Aquatic Invasive Species in the Lake Champlain Basin  
Casey Binggeli, Curtis Biker, Timothy Warren, Curt Gervich (SUNY Plattsburgh)  
Ethnoecology of Aquatic Invasive Species: Conflicting Perspectives on Watershed Management in Upstate NY  
Michael C. Ennis-McMillan, Karen Kellogg, Molley Bergen, Leah Wohl Pollack (Skidmore College)  
“A Dominant Consideration”: How Native Fishes Changed from Trash to Treasure  
Anders Halverson  
Two Centuries of Carp Rhetoric: Celebrities Aren’t the Only Ones Getting Makeovers  
Glenn Sandiford (University of Illinois Urbana-Champaign)  
When Science Speaks: Examining the Rhetoric of Invasive Species  
John Epifanio (Illinois Natural History Survey)

G-3 Environmental Justice: Ethics, Race, Rights, part 2  
Chair: Kimberly Smith  
Terrill 108, symposium  
Social Aspects of Energy Use in India: The Gap between the Haves and Have Nots – Can it be Closed through Technological Means?  
Sudhakara Reddy (Indira Gandhi Institute of Development Research)  
Jessica Kelly (Millersville University)

G-4 Integrating Community-based Projects into GIS Courses: Preparing students for Interdisciplinary Group Projects  
Chair: Eileen Johnson  
Jeffords 127, panel  
Developing and Supporting GIS-Based Service-Learning Projects at Green Mountain College, Vermont  
John Van Hoesen (Green Mountain College)  
Using Community Based Courses to Build Capacity for Agricultural Conservation Planning  
Eileen Johnson (Bowdoin College)  
Community Based Learning and GIS: A Student’s Perspective  
Leah Wang, Eileen Johnson (Bowdoin College)

G-5 The World of Environmental Policy-Making, part 2  
Chair: Cassandra Hemphill  
Livak 1, symposium  
Toward Watershed-based Governance along the Hudson River  
Roibart Breen (Siena College)  
Prospecting the Solar Frontier: Decarbonization, ’Sputnik Moments,’ and the Political Ecology of the Green New Deal  
Dustin Mulvaney (University of California, Berkeley)  
Diffusion of Stewardship Contracting within the U.S.
ASSOCIATION FOR ENVIRONMENTAL STUDIES AND SCIENCES

Forest Service: Results from the Pilot Case Study
Cassandra J. Hemphill (University of Montana)
“Here’s What I Think”: The People’s Voice in Strategic Environmental Assessments
Reeve Gutsell, James Gruber (Antioch University New England)

G-6 ESS – Pedagogical Issues, part 3
Chair: Leah Joseph
Livak 2, panel
Connecting Environmental Science with Hands-on Business Applications in the Classroom
Vikki Rodgers (Babson College)
Improving Students’ Critical Thinking Skills in the Context of Environmental Ethics
Courtney Quinn, Mark Burbach, Gina Matkin, (University of Nebraska - Lincoln)
Reading the Urban Landscape: The Case of a Campus Tour at York University, Ontario, Canada
Adrina Bardekjian, Michael Classens, L. Anders Sandberg (York University)
Internet Resource for Global Protected Area Study and Research
Peter Rogers (University of Buffalo)

G-7 Artists and Environmental Scientists: Opportunities for Skill-Sharing and Collaborations, part 4
Chair: Jennifer Joy Pawlitschek
Chittenden Bank Room, panel
Human-Powered Art: Internalizing Awareness of External Systems
Maria Michails (TreiaStudios/Eyebeam Art + Technology Center)
Immersing the Arts: Funding Coastal and Marine Themed Artistic Endeavors at CT Sea Grant
Syma Ebbin (Connecticut Sea Grant/University of Connecticut)
Art and Science Collaborations in Addressing the New Needs of Natural Life Forms
Elizabeth Demaray (Rutgers University)

G-8 Journey of the Universe (film)
Chairs: Mary Evelyn Tucker and John Grim (Yale University)
Sugar Maple Ballroom
This documentary film on the nature of the universe was produced and co-written by AESS award winner Mary Evelyn Tucker, cosmologist Brian Swimme, and John Grim, who also co-directs the Yale Forum on Religion and Ecology with Tucker. Premiered in March 2011, the film tells the earth’s evolutionary story as a grand epic, weaving together the history of the universe with the history of humanity. Journey of the Universe is the culmination of over 20 years of conversation and research by the film’s creative team. This story is indebted to Thomas Berry, a eco-theologian and scholar of world religions. Tucker and Grim will host the showing and lead a discussion following the film.

G-9 A Place for History in Environmental Studies, part 3
Chair: Eric Mogren
Jeffords 110, symposium
The Complexity-Energy Relationship
Philip Barnes (University of Delaware)
Allen Chamberlain, the Appalachian Mountain Club, and the Progressive Conservation Movement
Elizabeth Mills (University of Vermont)
Tradition, Innovation, and Organization: A Helpful History of New York City Waste Management
Thomas Harrington (Stevens Cooperative School), Hildegaard Link (City University of New York Graduate Center)

G-10 Urban Environmental Pedagogies: Bringing Theory to Practice, part 3
Chair: Patrick Hurley
Jost Foundation Room, panel
Urban Greening: The Role of Student-Led Oral History in Assessing Urban Tree Connections in the Haddington Neighborhood of West Philadelphia
Patrick Hurley (Ursinus College)
Planning for Climate Change in the Public Realm: An
Urban Environmental Planning Studio
Cameron Weimar (Catholic University of America)

A Case for Place-Based, Experiential Education: The University of Oregon Urban Farm Case Study
Harper Keeler (University of Oregon)

10:30 am: Coffee and Snack Break
Livak Fireplace Lounge

11:00 am: Closing Plenary, The Honorable Bernie Sanders, U.S. Senator (I-VT)
Introduction – Phil Camill, incoming AESS president
Sugar Maple Ballroom

12:00 pm: Lunch
Mount Mansfield Dining Room

1:00 pm: Conference Adjourns

SAVE THE DATE
June 21-24, 2012
AESS 2012 Annual Meeting
Santa Clara University
California

The Association of Environmental Studies and Sciences invites you to join us for the next AESS Annual Meeting in California June 21-24, 2012.

CALL FOR PAPERS
The AESS Annual Meeting is an interdisciplinary event for those interested in research, teaching and outreach around environmental studies and sciences. We welcome presentations from scholars, practitioners and students. Look for the call for papers next fall. See our website www.aess.info for updates and information.

Santa Clara University is a Catholic, Jesuit University in the Heart of Silicon Valley in San Francisco’s south bay area. One of our core missions as an institution is to provide leadership in developing a more just, humane and sustainable world.

For further information, contact Leslie C. Gray, lcgray@scu.edu, Environmental Studies Institute, Santa Clara University.
EXHIBITOR LIST

Thanks to the following exhibitors for providing exhibit space at the conference:

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Yale University Press
Evocative Design
Vermont Law School
Earthwatch Institute
Island Press
University Press of New England
In 2008, Chatham University received a singular gift from the Eden Hall Foundation—a 388-acre farm just 20 miles north of its historic Shadyside Campus. Inspired by the legacy of alumna Rachel Carson, Class of 1929, the University established the School of Sustainability & the Environment (SSE) in 2009 to provide innovative, interdisciplinary education and research opportunities for undergraduate, graduate and professional students.

The University engaged the award-winning firms of BNIM of Kansas City and Andropogon Associates of Philadelphia to create the campus master plan. Planning for the first phase of construction is now underway with Mithun, another world-renowned firm from Seattle. We are charting a new frontier in sustainability for higher education by building the first sustainable university campus from the ground up.

Eden Hall Campus will transform how Chatham occupies the land, designs buildings, and interacts with the environment and others. We will create a net-zero energy campus that integrates, studies, and teaches sustainability, and even serves as a member of the faculty itself. Eden Hall Campus will become a foundation for transdisciplinary education, and a model for sustainable living in the 22nd century.

We are also searching for the inaugural Sigo Falk Chair in Social Justice and Sustainability.

Established by Trustee Sigo Falk, the Falk Chair will bring a philosophical perspective and expertise in the areas of sustainability and the environment. The Falk Chair will be able to integrate sustainability and other disciplines through an ethical perspective, and thereby drive the discussions around humanities issues in sustainability and the environment.

The Falk Chair will not simply lend a humanistic perspective to the University community, but will ensure that SSE will maintain questions of ethics, social justice, and philosophy at its core. Through courses, research, publications and lectures, the Falk Chair will be dedicated to the philosophical issues raised by sustainability challenges. This is an incredible opportunity for the right individual, and I hope you can help us find the perfect candidate.

The Falk Chair will join faculty who are setting the foundation for a distinctive curriculum. Our Master of Arts in Food Studies program has admitted two cohorts of highly qualified students who already are helping transform how food is produced, distributed, and consumed in this region. Applications are now being accepted for our new Master of Sustainability Studies and online Certificate of Sustainable Management, both of which will launch in fall 2012. Eventually, SSE will provide sustainability programming from the undergraduate to the doctoral level, along with life-long learning and outreach opportunities.

All of the faculty of the School are AES members, and many of us are at the conference. Please introduce yourself if you get the chance. I hope you will take the opportunity to visit Eden Hall Campus soon, either online or on the ground, and experience the evolution of this distinctive learning environment.

Sincerely,
David Hassenzahl, Ph.D.
Dean, School of Sustainability and the Environment
Chatham University

www.chatham.edu/sse
ISLE
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ISLE is a journal of ecological literary criticism and environmental writing. It seeks to explore the relation between human beings and the natural world. ISLE publishes literary criticism, poetry, fiction, and literary nonfiction relevant to its thematic focus.

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The Marine Mammal Commission is an independent agency of the U.S. Government, established under Title II of the Act to provide independent oversight of the marine mammal conservation policies and programs being carried out by federal regulatory agencies. The Commission is charged with the following seven duties:

1. undertake a review and study of the activities of the United States pursuant to existing laws and international conventions relating to marine mammals, including, but not limited to, the International Convention for the Regulation of Whaling, the Whaling Convention Act of 1949, the Interim Convention on the Conservation of North Pacific Fur Seals and the Fur Seal Act of 1966;

2. conduct a continuing review of the condition of the stocks of marine mammals, of methods for their protection and conservation, of humane means of taking marine mammals, of research programs conducted or proposed to be conducted under the authority of this Act, and of all applications for permits for scientific research, public display, or enhancing the survival or recovery of a species or stock;

3. undertake or cause to be undertaken such other studies as it deems necessary or desirable in connection with its assigned duties as to the protection and conservation of marine mammals;

4. recommend to the Secretary and to other federal officials such steps as it deems necessary or desirable for the protection and conservation of marine mammals;

5. recommend to the Secretary of State appropriate policies regarding existing international arrangements for the protection and conservation of marine mammals and suggest appropriate international arrangements for the protection and conservation of marine mammals;

6. recommend to the Secretary such revisions of the endangered species list and threatened species list published pursuant to section 4(c)(1) of the Endangered Species Act of 1973 as may be appropriate with regard to marine mammals; and

7. recommend to the Secretary, other appropriate federal officials, and Congress such additional measures as it deems necessary or desirable to further the policies of this Act, including provisions for the protection of the Indians, Eskimos, and Aleuts whose livelihood may be adversely affected by actions taken pursuant to this Act.

To fulfill its responsibilities, the Commission—

- oversees the domestic and international activities of federal agencies affecting marine mammals;
- provides informed and objective advice to the executive and legislative branches of the federal government on measures needed to achieve the goals of the Marine Mammal Protection Act;
- promotes consultations with the scientific community, state agencies, local authorities, and public interest groups to help identify mutually acceptable ways to resolve issues of concern;
- coordinates federal, state, and local efforts to achieve the Act’s stated purposes of conservation of marine mammal species, population stocks, and the ecosystems upon which they depend;
- formulates and promotes implementation of long-term policies to ensure the conservation of marine mammals and other components of the marine ecosystem; and
- carries out a directed research program to inform and guide marine mammal conservation measures at local, regional, national, and international levels.
OUR APPROACH TO CHANGE
The Center for Humans and Nature offers a rare space to analyze the ethical frameworks that fundamentally shape how people think and feel about themselves and their role in nature.

CENTER FOR HUMANS AND NATURE
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The Udall Foundation offers $5,000 undergraduate scholarships for students committed to careers related to the environment.

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Visit the Island Press table for solutions to complex problems. AESS attendees receive 25% off select titles.

THE RUBENSTEIN SCHOOL
OF ENVIRONMENT AND NATURAL RESOURCES
The Environmental Program at University of Vermont was established in 1972 as a campus-wide program serving students in four colleges across the university. We offer an interdisciplinary undergraduate major in Environmental Studies (ENVS), available to students in UVM's College of Arts and Sciences, College of Agriculture and Life Sciences, and the Rubenstein School of Environment and Natural Resources. We currently serve over 450 majors pursuing interests as diverse as environmental education, international development, sustainable agriculture, environmental law and policy, religion and ecology, ecopsychology, and landscape restoration. Students can minor in ENVS from any college or school within the university.

Drawing from many disciplines, from the arts and humanities to the social, basic and applied sciences, the Program provides students with an interdisciplinary liberal education, drawing upon the resources of the campus as well as local and global communities. We encourage community engagement through internships and service learning and we support student activism and political awareness. The Environmental Program community is a lively hub of activity, addressing local and global issues with equal concern. We believe in collaborative problem-solving and the power of human imagination to create a more sustainable future. We intend our Program to be a beacon of hope amidst the very challenging environmental dilemmas that face humanity.

**ENVS Concentrations**
- Ecology and Conservation
- Food, Land and Community
- Environmental Policy and Development
- Nature, Culture and Justice
- Sustainability Studies
- Environment and Health
- Individual Design

**Senior Capstone Options**
- Thesis/Project/Creative Arts Project
- Internship
- Advanced Courses

“I chose to be an ENVS major because I want to make a difference in our world, to help bring about positive change in our communities for the environment and society.” ~ Seth Levin, 2011

“Everything I have accomplished during my UVM years involved the skills I gained in environmental studies courses. I have pursued much more than I ever expected. My courses inspired me to take my own action and change my lifestyle to better fit my environmental ethics.” ~ Jessica Fefer, 2011

“After graduation I am certain my ENVS degree will serve me in my career, but more importantly in my conscience; it is the foundation with which I now make decisions.” ~ Naani Sheva, 2011

**Contact us:**
Environmental Program, Bittersweet House, 153 South Prospect St., Burlington, VT 05401
Email egetchel@uvm.edu, Phone: (802) 656-4055, Website: www.uvm.edu/~envprog
The Association for Environmental Studies and Sciences (AESS) was created in 2008 to provide professional identity, collective voice, and continuing education for academics in environmental fields of study. The first Environmental Studies and Sciences (ESS) programs in the 1970s and earlier aimed to open doors between disciplines to encourage discoveries about the interdependencies of Earth and humanity that could not be made otherwise. Today this community consists of thousands of faculty members from diverse backgrounds associated with the nearly 1,500 ESS programs and departments in American higher education.

AESS encourages excellence in research, teaching, and practice in environmental studies and science. It assists members in discovering like-minded colleagues at other campuses. It also facilitates encounters with other colleagues who hold different viewpoints and professional orientations. Enlarging and strengthening the community of scholars and scientists with whom we interact is arguably the most important benefit the Association offers.

AESS serves these important purposes:

* enlarging our capacity for cross-campus collaboration, mentoring, and shared scholarship;
* creating a collegial process for speaking, networking, publishing, and conference development;
* developing professional and accreditation standards;
* supporting the career development of members, especially junior faculty;
* providing professional advice on important matters of environmental policy and management.

Environmental scholars and scientists inevitably discover that the challenges we face transcend the disciplinary fields in which many of us practice. They require humility about what we know and don’t know, both as individuals and as representatives of disciplines. We believe that it is only through learning communities of the type we hope to foster at AESS that we can achieve “whole system” environmental education and creative synthesis of knowledge that promotes a healthier Earth.
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