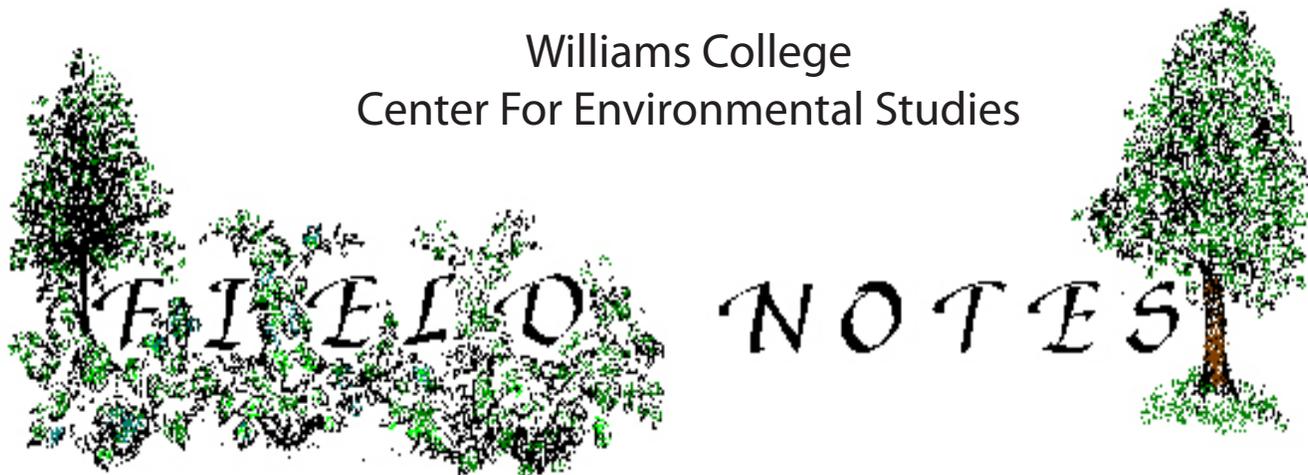


Williams College
Center For Environmental Studies



Summer 2008

A Publication of the Center for Environmental Studies, Williams College,
P.O. Box 632, Williamstown, MA 01267 <http://www.williams.edu/CES>

Letter from the Director

Dear Friends of CES:

Greetings from Kellogg House, where we are surrounded by packing boxes as we embark on an exciting set of transitions. The boxes reflect our imminent physical transition – a (temporary?) relocation from Kellogg House to Harper House, a lovely Victorian building on the far side of the Science Center. We will occupy these temporary quarters for at least two years, while the Stetson-Sawyer building project spills into the space that Kellogg House currently occupies. Meanwhile, Kellogg House itself will be moved out of harm's way. Over the next several years, it will be renovated, with a goal of preserving its historic features while also adding a number of “green” features.



Doug Gollin

It remains unclear whether CES will return to Kellogg House at the end of this process, or whether (as some have proposed) we will move into a new and “purpose built” center, elsewhere on campus. We are currently working with College administration to discuss the alternatives.

Among many other things, the future location of CES will be shaped by a series of curricular and staffing decisions that we will be making over the months ahead. President Schapiro, the Deans, and the Provost, along with the Trustees, have expressed enthusiasm for strengthening the Environmental Studies program at Williams over the next several years. We expect to hire two or more additional full-time faculty members within CES, and the College has committed to helping us find the resources to build a larger and deeper program. To this end, we recently received a generous grant from the Mellon Foundation that will help us think through our goals and directions – and eventually to support us in creating one of the needed faculty positions.

As we look to the future, we are asking ourselves a lot of fundamental questions: What do we mean by “environmental studies”? What are the environmental issues that will concern us in the decades ahead? What kind of training should we provide in an interdisciplinary program that is based in a liberal arts college? How do we balance students’ desire for “practical” or “technical” training against the broader (and, perhaps, deeper) goals of liberal education? What kind of physical space should we have for CES? Where on campus should we ideally be located? How significant is Kellogg House itself as a home for CES?

These questions (and many more) will be the subject of a faculty seminar, to be held this fall, which will

lead us towards plans for staffing and curriculum. We will be reading, thinking, meeting, and discussing. It should be fun!

We appreciate input from alumni. Your personal and professional experiences – and your reflections on environmentalism today – offer a wealth of information that we can use in thinking about our future. Please feel free to drop me a line with any observations or directions that you might have for CES. Life being what it is, I can't promise a detailed reply, but I assure you that I will read what you write. Perhaps in this internet era we can create some kind of blog or open forum in which people can post their thoughts.

A couple of other news items are worth noting. After searching this past year for a “replacement” (if such a thing were possible) for Kai Lee, we decided that we were premature in looking to hire someone without first clarifying our objectives. Because of that, we suspended our search after screening a large number of applications and interviewing a number of terrific candidates. In the meantime, we will welcome a number of remarkable visitors in the coming year. Their courses, and their presence on campus, will enrich us.

In Fall 2008, we will welcome Emmanuel Theophilus, an Indian naturalist and activist who has played a key role in creating and managing the Foundation for Ecological Security, a non-governmental organization that has been involved in community resource management in the Himalayan region. Theo will come to Williams as a Class of 1946 Distinguished Visitor, and he will teach a class on “Nature and Politics in the Himalayan Region.”

In Spring 2009, we will welcome another Class of 1946 Visitor, Jennifer Lee Jones, a widely known scholar and teacher who focuses on the complex linkages of globalization, conservation, ecology, and justice. Jen has most recently taught with the International Honors Program, a yearlong program in which she has taught a number of Williams students. We are delighted to bring her to campus, where she will teach a class on “Political Ecology of Biodiversity Conservation.”



Harper House, 54 Stetson Court

Also in Spring 2009, we will jointly (with the International Studies program) host a visiting Ugandan economist, Wilberforce Kisamba-Mugerwa. Dr. Kisamba-Mugerwa is a former Minister of Agriculture in Uganda, and his area of research specialization is on land issues and smallholder agriculture. He and I will co-teach a seminar on agricultural development and the problems of smallholders, designed for Environmental Studies students, International Studies students, and master's students from the Center for Development Economics. Needless to say, I'm excited personally for this opportunity.

Finally, we are delighted that William Lynn will be coming to Williams as a two-year visiting assistant professor, teaching a number of classes including core classes in Environmental Studies. Bill brings remarkably broad training – as a geographer, a hermeneuticist, a specialist in “practical ethics,” and as an expert on the politics and controversy surrounding wolf reintroductions and recolonizations in North America. Bill has most recently taught at the Center for Animals and Public Policy at Tufts University, and we are very pleased that he will be joining us.

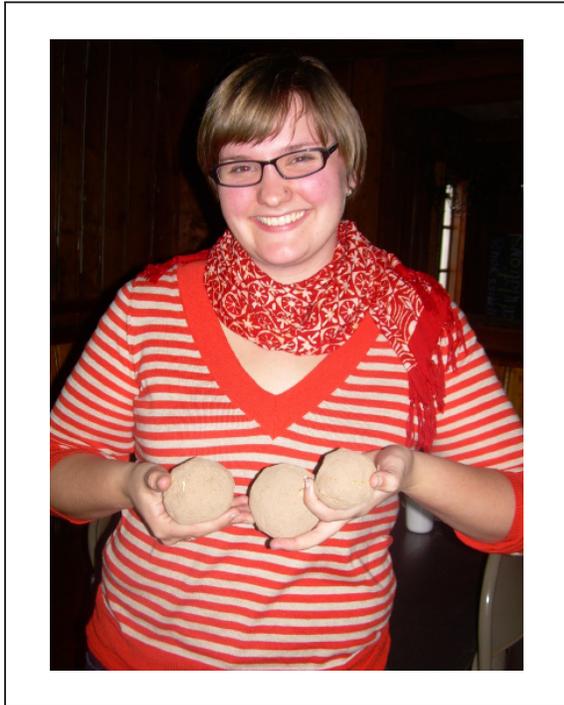
Outside of the curricular realm, CES has been joined by a new institutional partner on campus. As you may have heard, the College received a generous donation to create the Zilkha Center for Environmental Initiatives. The Zilkha Center is specifically focused on incorporating sustainability into all aspects of campus life – from renewable energy to sustainable food, and from recycling to green design. Over the first year of the Zilkha Center's operations, we have developed strong partnerships on the curricular and educational aspects of these sustainability issues. The division of labor between the Zilkha Center and CES often intersects and sometimes overlaps and we pleased to have another strong voice on campus dedicated specifically to pursuing campus environmental initiatives.

On that note, I wish you all the best. We look forward to hearing from you in the months ahead. Please do stay in touch. And if you're on campus, come and find us in our new digs at Harper House!

All the best,
Doug Gollin

Class of 2008 Environmental Studies Awards

The Tom Hardie '78 Memorial Prize for work that best demonstrates excellence in Environmental Studies was awarded to two students this year for their outstanding senior theses. Whitney Leonard '08 won the award for her thesis, *What Drives the Green Car Market? The Effects of State Tax Incentives for Hybrid Electric Vehicles*, and Nora Morse '08 received it for her thesis *The Lion and the Lamb: The Struggle between Conservation and Pastoralism in Tanzania*.



Nora Morse '08

The Robert F. Rosenberg Prize was awarded to Julia Sendor '08 in recognition of her outstanding scholarship, campus environmental leadership, and potential for solving local, national, and international environmental problems.

The J.W. Scheffey Prize for Environmental Leadership, in the name of Andrew J.W. Scheffey, the first director of the Center for Environmental Studies, was awarded to Zoe Fonseca '08 for her enthusiastic environmental activism and leadership.



Sarah Gardner and Doug Gollin presenting Hardie Award to Whitney Leonard '08

Two students received the **Environmental Studies Committee Award**, for their scholarship, involvement, and integral role in the Environmental Studies community. Kendell Newman '08 and Elizabeth Gleason '08.



Log Lunch Co-Chairs; Liz Gleason '08 and Kendell Newman '08 receiving CES Committee Award

Campus Environmental Advocacy Group (CEAC)

by Julia Sendor '08

How can students begin a commitment to sustainability from the moment they step foot on campus? How can we reduce the mountains of paper waste that pour from our printers? What does a sustainable building policy truly look like? These were the kinds of questions that the Campus Environmental Advisory Committee (CEAC) tackled this year. With so much new talk about sustainability at Williams, CEAC offered an important opportunity for students, faculty, and staff to come together to draft new policies that turn the often-vague concept of “sustainability” into something concrete.



Students, faculty, and staff met monthly, and focused on several key areas: education, paper-use reduction, and building policy. The education subcommittee worked with the administration to devote a part of JA training and First Days to teaching first-years about how everyday actions can reduce students' environmental footprint. The hardworking paper waste reduction group did extensive research of waste-reduction schemes, including a student opinion survey, and convinced College Council to approve a pilot project that would monitor paper use, with a plan to charge for exceeding a printing limit. The sustainable building subcommittee drafted an ambitious proposal that takes a hard look at Williams's seemingly ever-expanding construction projects and recommends a green building policy to reduce campus CO2 emissions.

Finally, CEAC members had the chance to meet with the college's representative to the January trustees' meeting in Oxford, England, where the trustees put together their “2020” plan: a vision of the college over the next decade. CEAC urged the trustees to ramp up the original ideas for sustainability advances, including more focus on renewable energy, as well as strengthening the environmental studies program. Overall, CEAC helped craft important plans that will shape the future of Williams's impact on the environment – from the short-term to the decade-long-term.

Thursday Night Group: A Year of Action

by Morgan Goodwin '08

The climate and environmental juggernaut of Thursday Night Group did a lot this year! Last summer we decided to combine Greensense into TNG and work on bringing our activism into the mainstream of Williams College. The mission: create opportunities for a large number of people to contribute to building a just and sustainable society. The method: hold huge meetings with lots of leadership opportunities, volunteer opportunities, and to constantly be getting things done.



It's working. After an astounding 92 people at our first meeting, and over 50 at every meeting in the fall semester, the effects were immediately visible. We ran the most successful “Do It In The Dark” competition yet, organized a press conference and legislative hearing with Massachusetts College of Liberal Arts, re-vamped the co-op composting program, held a Williamstown Step it Up event, sent 13 people to Power Shift 07 in DC, gave climate presentations at 3 high schools, changed hundreds of light bulbs and worked on getting solar panels on the new College offsite storage facility. It's a lot when you list it like that, and that's just for fall semester.

We achieved all this and more with a new a creative meeting style. We gather in Dodd living room at 10:00 so there are no time conflicts, and usually have traditional beverages on hand. After rousing discussion with new people, our project leaders announce what they're working on and what they need help with. Any-

one can start a new project, and we typically have 4-7 groups that spend half of our hour-long meeting putting ideas into action.



Whitney Leonard '08 (speaking) and Zoe Fonseca '08 at the Massachusetts Legislative Conference on Climate Change at Massachusetts College of Liberal Arts

Spring semester kicked off with an all-school event called "Focus the Nation." 100 professors brought up climate change in class, relating it to their subject in any way possible. A series of 5 workshops engaged students in topics from environmental justice to green marketing, and then a panel of college administrators and our president answered questions from the campus community about priorities and plans for ecological sustainability. The day was capped off by a speech in Chapin Hall by Christopher Flavin '77 of the World Watch Institute.

Some of the energy of the day, and several other events throughout the spring, was focused on lobbying for a state bill called the Global Warming Solutions Act. Lobbying efforts were coordinated by a new state-wide student climate network that Williams students helped to get off the ground. The culminating event for that network was a weekend conference and lobby day in Boston in April called Mass Power Shift, with Williams students again playing a major role.

Spring semester also saw efforts around voter registration, Recyclemania, greening commencement and the creation of a college sustainability fund through matching the class of 2008's gift to the College. An energetic leadership team of 10 students is raring at

the gates to get started in the fall, a team that will no doubt be enhanced by three of them attending week-long environmental leadership programs with the Sierra Student Coalition and continuing to build our connections with student activists all over the country. With a commitment to work at the campus, community, state and national level, Thursday Night Group is not only re-shaping Williams College, but becoming a leader in the national youth movement for global warming solutions. We have no doubt they'll continue to innovate and achieve impressive results.



TNG Students at Powershift Lobby Day in Boston posing with Photo of former Williams President Garfield (1908-1917)

A Year of Log Lunches

By Elissa Brown '09 and Abby Martin '11

Sept. 21: How a statewide conservation organization responds to climate change

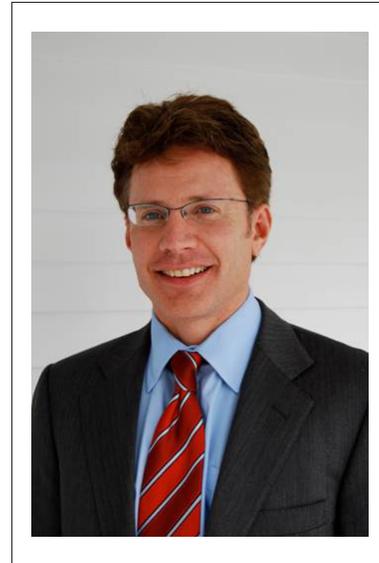
Taber Allison, Vice President for Conservation Science and Ecological Management at Mass Audubon

Taber Allison outlined Mass Audubon's efforts to address climate change in Massachusetts, including land preservation and greening its nature centers.



Hank Art and Taber Allison

between GE, the EPA, the city of Pittsfield, and the state of Massachusetts. GE will clean the land before turning it over to the Pittsfield Economic Development Association in return for EPA assistance with the cleanup. Pittsfield's success in cleaning up this land, said Nuciforo, is an important symbol of the city's economic rebirth after the collapse of its manufacturing sector.



Andrea Nuciforo

September 28: Reviving Urban Brownfields: A Berkshire Experience

Former State Senator Andrea Nuciforo

After a decade representing his hometown of Pittsfield in the state senate, Andy Nuciforo returned to Berkshire County to be the Pittsfield Registrar of Deeds in 2006. Nuciforo described his work revitalizing urban brownfields within the former General Electric corporate campus. He hopes to redevelop the industrial site as a municipal park and location for light industry, though the land is still unsold, mostly because of the contamination. Heavily laden with PCBs and other pollutants (vestiges of the company's transformer production), which have adhered to the soil and ruined local waterways, much of the GE site and surrounding land is currently undevelopable. Federal Superfund law dictates that any entity occupying the site is potentially responsible for the remaining pollution. Nuciforo was involved in negotiations about the site cleanup, which the company has agreed to remediate under a consent decree

October 12: Digging In: Experiments in Earthen Building

Nora Morse '08

All kids love making forts. Nora Morse '08 has taken it one step further, using a summer CES Creative Endeavor grant to research and construct an earthen house on family property in rural Minnesota. Inspired by her sophomore year Winter Study course of "Alternative Building and Design," Morse designed a house and got her parents to agree to help make it a reality. The site was located 45 minutes from the nearest supermarket, and there was no electricity or running water, necessitating a passive solar design. One "cool feature" of the house is the thermal mass cooler, a refrigerator built into the wall that stays at a constant 50 degrees all summer long. Another construction challenge involved how to make a house out of free or cheap materials. Until recently, Morse pointed out, construction was free; you would just build with whatever resources you had around you. Following that principle, Morse built

her house out of rubble waste from a demolition site, salvaged windows, and primarily “cob”—a mix of sand, clay and straw. Building this house was “like sculpting a giant, giant clay pot.” Morse explained, “Building a house from scratch changes the way you look at where you live and how you live,” and she described her house project as “green building on steroids.”

Oct. 26: *The Nuts and Bolts of Sustainable Building at Williams*

Matt Gustafson '08 and Ruth Aronoff '09; Waste at Williams

Katie White '11; Power Conservation through Video Image Analysis, Katie Creel '10

Four students who conducted campus sustainability research during summer 2007 presented their findings on green design of College buildings, the Dining Services waste stream, and opportunities to use video image analysis to monitor energy use.

newable energy—which will in turn help the company stabilize energy costs. After much debate, Van Dyke said the company decided to build their turbine on a shoulder of the mountain, about 400' below the summit, so the uppermost points of the blades would be just below the mountain and therefore less visible to customers and neighbors—though the more protected site will produce approximately 25% less energy than a more exposed mountaintop position would have. The actual installation of the turbine last August, after nearly three years of planning, presented numerous challenges, most notably hauling the nearly 500 tons of equipment above 2000 feet in elevation (particularly as the resort tried to use extant roads, some with as high as a 27% grade, to reduce the construction's impact). After a few glitches, the turbine is now running well, and is expected to generate approximately 4,600,000kWh of electricity per year, or about a third of the resort's annual needs.



Luce Student Log Lunch talk

November 9: *Forever Green: Devoted to Environmental Stewardship*

Jim Van Dyke, Vice President, Jiminy Peak Resort

Leader of Jiminy Peak's “Green Team” for almost two decades, Jim Van Dyke has helped the resort in its efforts to reduce fossil fuel and energy consumption and educate its customers on environmental issues. In his presentation, Van Dyke discussed Jiminy's most visible environmental initiative, the installation of a 1.5 MW turbine on the shoulder of Jiminy Peak. The resort's expansion, decreasing snowfall, and rapidly rising energy costs pushed Jiminy to go beyond energy conservation and look to produce their own re-



Jim Van Dyke

November 16: *To Carry the Big Stick: Nuclear Threats, Nuclear Burdens*

Sunny Miller, Director, Traprock Peace Center

Sunny Miller interspersed anecdotes of her years of anti-nuclear advocacy with arguments against the use of nuclear energy to replace petroleum and coal in electricity generation. As a substitute for fossil fuels, Miller said that nuclear power would not live up to the media spin and indus-

try euphemisms of a “clean and green” energy source, and would cause considerably more environmental damage than the general public believes. Replacing coal in electricity generation, Miller claimed, would require 1500-2000 new reactors, a new Yucca Mountain-sized storage facility for spent fuel every 3-4 years, and could produce a Chernobyl-sized disaster every half decade. While making her case against nuclear energy, Miller recounted stories from decades of activism, including a description of her efforts to close the Yankee Row nuclear reactor and a colorful tale of her arrest while lobbying legislators in Washington, D.C. In closing her talk, Miller urged the audience to use their consciences in decision-making, looking for alternative energy sources that would not carry the liabilities and threats of nuclear power.



Sunny Miller

November 30: Conserving Animal Genetic Resources: Economics, Technology, and International Agreements

Professor Doug Gollin, Director, Center for Environmental Studies

Doug Gollin spoke about a project he got involved in several years ago, looking at the role played by international treaties in developing formulas to address the idea of animal genetic resources (AnGR). As a global community, we need to focus on effective AnGR management to ensure food security, sustainable development and the

livelihoods of hundreds of millions of people. The concern is that driving forces—including intensification of animal agriculture, emerging animal diseases and climate change—are pressuring and accelerating erosion of the genetic resource base. Additionally, there are fears that commercialization, globalization and technology are eroding traditional livestock keepers’ control over their AnGR. Pressure is growing from the international community to develop a conservation agenda and build a legal mechanism to govern AnGR exchanges. One possible idea is a “benefit sharing” to bring financial benefits to poor farmers and herders in developing countries, allowing a transfer of money from consumers in rich countries to poor producers. Often, developing countries are viewed as treasure troves of animal genetic diversity. However, a careful analysis of current gene flow reveals that there is actually little commercial flow of animal genes from non-OECD to OECD countries. Thus, a benefit sharing mechanism that compensated the countries of origin would primarily only aid the rich countries.



Stewart Jones ‘08
and Lee Harrison

December 7: Why Biodiesel Now; Why Biodiesel Here?

Lee Harrison, Vice President, Berkshire Biodiesel

Lee Harrison of Berkshire Biodiesel, talked about the potential for biodiesel manufacture and use in the Berkshires. His company, which hopes to have its Pittsfield plant up and running by mid-2009, expects to produce up to 50 million gallons of biodiesel annually from animal fats, vegetable oils, and eventually including oils from locally-grown crops. Berkshire Biodiesel plans to distribute its fuel—which Harrison touted as a clean-burning, nontoxic, biodegradable, renew-

ably-sourced, low emission, and, most importantly, American-produced alternative to petroleum—within a 150 mile radius, for use in diesel engines, power generation, and as heating oil in much of New England. Harrison emphasized that biodiesel alone, though, could not satisfy the area’s need for clean and renewable fuel; rather than a silver bullet, he said, the biodiesel would be “silver buckshot.”



Craig Robertson

***January 18: Solar Thermal Energy in the Northeast: A View from the Mechanical Room
Craig Robertson, President, Heliocentrix, Inc.***

Local designer and builder Craig Robertson spoke about his work constructing highly energy-efficient houses. He described the various technologies he uses in his buildings, which have, along with environmentally-conscious layout and design, allowed him to create extremely efficient and even energy-independent houses. Robertson said that, on the most basic level, the high R-value (high thermal resistance) insulation that he includes on all his projects provides at least “double the insulation of a good quality house today.” Robertson talked about his extensive use of solar electricity and hot water heating, which have become much more feasible in the Northeast climate with the development of evacuated tube technology, a form of vacuum tube solar collectors that are efficient in cloudy and cold

weather, with extremely low heat loss: efficient enough that Robertson described once seeing an array heat up to the 100° pumping temperature after sunset and under snow. In addition, he spoke about the importance of careful planning and building layout for increasing energy efficiency in his buildings, particularly when using radiant floor heating or large solar hot water storage tanks, so that heat loss from the warmest parts of the house simply goes to heat other parts of the building instead of leaking outside. His houses that use these technologies consume a small fraction of the electricity of conventional houses, paying off the front-loaded additional construction costs within about 25 years.



Gretel Ehrlich

***February 1: My Circumpolar Year
Gretel Ehrlich, Visiting Professor of Environmental Studies***

Gretel Ehrlich began her talk with show and tell from the Arctic, passing around thick mittens and boots lined with dog hair that she wore during her dog-sledding adventures. Last year, Ehrlich received a grant from National Geographic to report on indigenous Arctic people and how they’ve been affected by climate change. For a year, she lived with an indigenous group, sharing in their pleasures and hardships. She saw the rapidly melting ice in Western Greenland that severely hindered the people’s ability to travel

and hunt walrus, both of which are critical to their livelihood. Ehrlich is a natural storyteller, weaving tales for us of dogsled trips, Russian reindeer herders, and, above all, the overwhelming beauty of the Arctic.



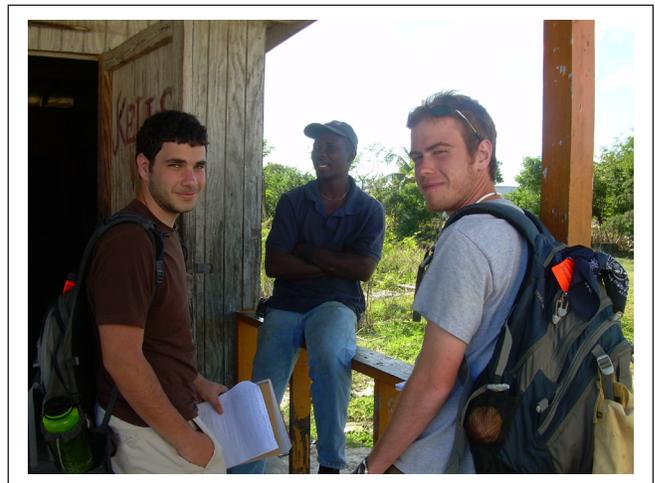
Eleuthera Winter Study Students

February 8: Sustainable Island: The Effects of Tourism Development on the Environment, Economy and Community in South Eleuthera.

Sarah Gardner, Center for Environmental Studies and Envi 25 students: Joshua Adeyemi '09, Emily Barrios '10, Benjamin Cohen '10, Andrew Douglas '08, Rachel Fevrier '08, Christopher Law '10, Jared Quinton '10, Michael Smith '09, Scott Tamura '09, Bolor Turmunkh '10 and John Vu '09

The history of Eleuthera Island is characterized by alternating cycles of prosperity and depression. This boom and bust pattern is now most evident in relation to tourism: the tourist economy boomed from 1950-80, then crashed in the 1970s, due in part to the demise of Pan Am Airlines, Bahamian independence, and the U.S. recession. The island is now dotted with deserted, dilapidated, overgrown resorts, including a former Club Med and the luxury Windemere Island resort, where Lady Di and Prince Charles honeymooned. Today the island is entering a period of renewed tourism, with several golf resorts, condominium developments and “dockotels” being planned by foreign developers. The benefits of this new development are ambiguous: seaside construction damages fragile reefs and marine ecosystems, which are a major resource and attraction of the Island. Also, the influx of tourists transforms communities and can alter traditional

ways of life. Yet the economic boost provided by tourist dollars, jobs, and the associated businesses opportunities, would be welcome to the sagging economy, which has almost no industry and an unemployment rate from 20-50%. Gardner and her students tackled these questions by visiting planned resorts and interviewing developers as well as interviewing over 60 Eleutheran residents about their views of the past, present, and planned tourism development. They found that most Eleutherans want a viable economy but understood the conflicts that accompany tourism. The researchers recommended a more sustainable form of tourism development that protects natural resources so that the island can be a true eco-tourist destination; resort and hotel development should be planned and regulated by the Bahamian government to protect resources, and tourist businesses should be owned and managed by Bahamians, instead of foreign investors, so that revenue will stay on the island.



Ben Cohen '10 and Chris Law '10 conducting interviews in South Eleuthera

February 22: Explorations in Solidarity in Nicaragua

Rick Spalding, Williams College Chaplain and Winter Study Students

Chaplain Rick Spalding and 16 students spoke about their experience in Nicaragua during their Winter Study trip. The trip focused on issues of social justice, exploring the question of how U.S. citizens can forge alliances and relationships with people from developing countries. In Nicaragua, the Williams group discussed social change with grassroots organizations, politicians, and the local community. They did most of their solidarity

exploration in their 5-day homestays, in the village of Dulce Nombre de Jesus. While they went in with a preconceived notion of poverty, they experienced a different, simpler way of life, though not necessarily “poor.” The host families were generous, and the group was surprised at how quickly they adjusted. They described their visit to La Chureca, a large dump, home to over 200 families. Its inhabitants put up with squalid living conditions because of the guaranteed income source; as “basureros,” they roam and collect recyclable materials to resell. Many basureros begin working at age four and have never been out of the dump. However, there is hope: for instance, organization Dos Generaciones was founded by two visionaries from La Chureca, with the mission of empowering the community through education and dreams of a better reality.



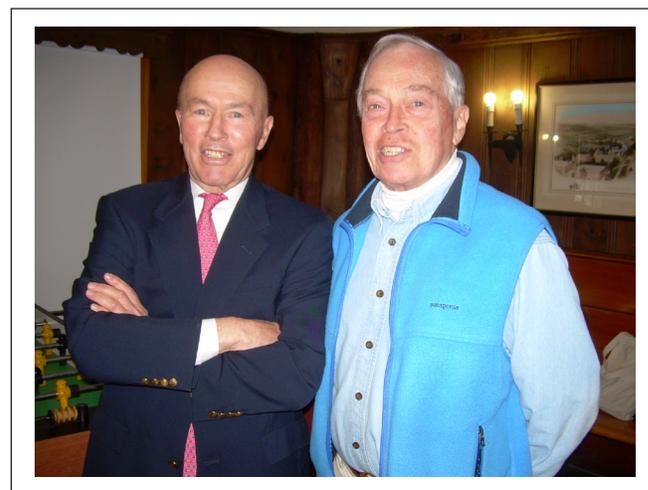
Nancy Marks '76

February 29: See You in Court: Why I Sue Polluters

Nancy Marks '76, Senior Attorney, Natural Resources Defense Council

Nancy Marks '76 spoke about her 25 years practicing environmental law with the Natural Resources Defense Council (NRDC). Marks has made a career of citizen suit enforcement, as almost all environmental legislation includes provisions allowing the public to sue the government if the enforcement of a law is lax. According to Marks, she and her colleagues have been so persistent in their suits that the NRDC is referred to by some as “the private attorney general.” The biggest complication of citizen suits is the govern-

ment and present administration’s strong ties to business, so that the government tends to settle for weak fines and lenient enforcement. Through the NRDC, Marks has filed suits over many Nixon-era environmental laws, such as the Clean Air Act, Clean Water Act, and hazardous waste laws, helping states that are unable to fund environmental law enforcement and preventing business interests in the government from interfering with environmental regulations. In her long career at the NRDC, Marks has brought (and won) numerous precedent-setting lawsuits, something she intends to continue for many years, despite the fact that litigation is no longer in vogue as the country is moving away from command and control enforcement to market mechanisms to reduce pollution.



John Pike with David Colt

March 7: Conservation Law Foundation: Defending the Law

John Pike '53, Attorney, Conservation Law Foundation

After a 35-year career at a Boston law firm, John Pike retired and turned his attention to the non-profit Conservation Law Foundation. Most Massachusetts streams are under stress, according to Pike, and many are in danger of being overdrawn as the state’s population grows. State permits are supposed to regulate the amount of water drawn from a waterway after the state Department of Environmental Protection calculates safe yield amounts. However, in several of Pike’s cases, including his biggest--the Ipswich and Holbrook rivers--the state failed to adequately perform safe yield calculations or set appropriate

pollution discharge limits, and certified that their permits are valid without adequate testing beforehand. The problem, said Pike, is that regulators “do a good job after laws are initially passed; later politics and bureaucracy kick in” to interfere with permits and testing in a “failure of values,” and so watershed associations and citizen groups like the Conservation Law Foundation are necessary to monitor the government.

April 4: Grassroots Environmental Activism: Using Ideas and Partnerships to Make Sustainable Change

Meg Sheehan, Environmental Activist

Meg Sheehan spoke about her experience working for the government and for non-profits, as well as about today’s many opportunities for young people to get involved. Sheehan explained that many people want to give money to support the environment, but it is hard to know how best to do so because

the issues are so complex. One key question, then, is how to direct environmental giving. Sheehan sees a wealth of potential in the grassroots environmental movement; currently, there are between one and two million non-profit groups dealing with environmental sustainability, indigenous justice, and contamination. In contrast to common “doom and gloom” views, non-profits often hold a view of imagination and conviction. Big changes begin small, with advocacy and creativity, and they are well within grasp.

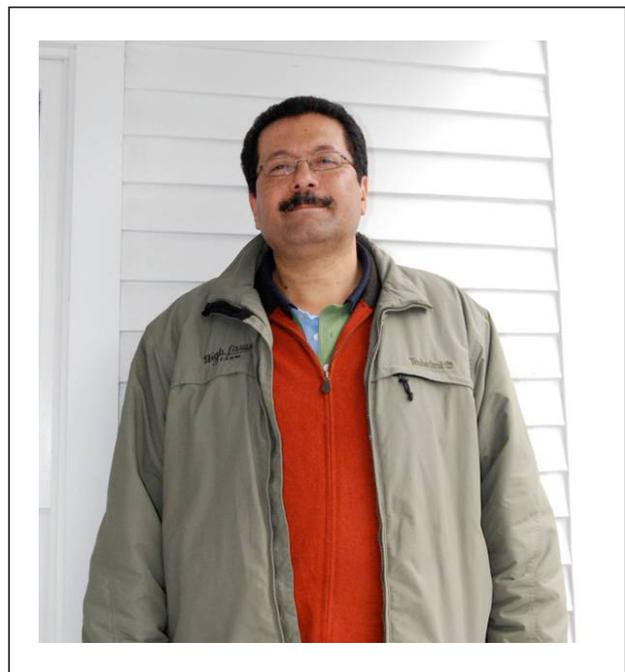


Log Lunch Cooks

April 11: High Lawn Farm: Health and Environmental Efforts

Roberto Lorenz, Manager, High Lawn Farm

Roberto Lorenz, manager of High Lawn Farm, spoke about modern dairy farming in Berkshire County and his farm’s partnership with Williams College. Though Massachusetts has lost more than three-quarter of its dairy farms in the past 25 years, High Lawn Farm has prospered and expanded production, sustained by a greater demand for locally produced and hormone-free milk products. Lorenz said that small farms such as his, which contains about 700 acres of unforested land and about 180 lactating cows, have significant environmental benefits over larger factory farms. Among the benefits of small family-owned farms, he said, are a lower concentration of animals, which reduces pollution and contamination; familiarity with cows and good animal care, more responsible and efficient distribution of manure, such as through High Lawn’s manure and nutrient plan; and preserved open space. Though institutions such as Williams College have sought the farm’s cage-free eggs and hormone-free milk, Lorenzo said that rising energy prices will hit High Lawn and other small farms particularly hard, and make the already difficult farming life even more difficult.



Robert Lorenz

April 18: Why are we failing to take action on climate change? A Psychological Analysis
Cindy McPherson Frantz, '91, Oberlin College

Cindy McPherson Frantz took a psychologist's perspective to explain human behavior related to climate change. Specifically, she discussed the five-stage model to understand why people fail to take action in this global emergency. First, we must acknowledge the crisis, which is difficult since we spend 90% of our time in climate-controlled buildings, additionally, changes are most pronounced at the poles, which are sparsely populated. Second, we must interpret the event as an emergency, overcoming our tendencies to process facts in self affirming ways. Third, we must accept responsibility, a task complicated by diffusion of responsibility in such a wide-spread dilemma. Next, we must decide what kind of help we can offer. Lastly, we must actually take action, acknowledging that reducing carbon emissions involves sacrifice. Franz provided several solutions to counter problems that arise in each of the five steps. Climate change can be made more noticeable by publishing graphs and by defining it as an emergency, though not an insurmountable one. We can clearly educate people about responsible behavior, and emphasize the importance of spending time in nature.

April 25: Reclaiming Home: Coalfields Activism in West Virginia and Arizona
Julia Sendor '08

Julia Sendor spoke about her thesis research on grassroots organizing in the coal-mining communities of Arizona and West Virginia. The activism in these two areas varies as much as the mining issues the communities face. In West Virginia, at least 500,000 acres have been flattened and 2,000 streams buried through mountaintop removal, as Sendor says, "raze, blast, scoop, dump"; and all in an ecosystem that is home to extraordinary biodiversity. Local activists have been working to remove the coal company's allies in the state Department of Environmental Protection and Army Corps of Engineers, and to strengthen and fund enforcement organizations like the Department of Environmental Protection. Meanwhile, coal companies have severely depleted subterranean aquifers on the Hopi and Navajo reservations as they pump a slurry of coal and water about three hundred miles to a Nevada generating sta-

tion, which has left the arid reservations with low water levels and polluted groundwater from the over-pumped aquifers. The Arizona communities have seen much greater success in their battles against local mining, including transferring mining companies' settlement money into an investment fund for renewable energy. Activism in West Virginia, meanwhile, is on the defensive, still working to remove coal interests from state politics. As activists struggle against coal companies across the country, Sendor reminds us that "it is important remember that little steps can add up to big victories."



Log Lunch Head Cooks Kendell Newman '08 and Liz Gleason '08 with Ken Brown '05



Hopkins Forest: A Salamander's Tale

by Andrew Jones, HMF Manager

Though no one knew it at the time, the morning of April first, 2006 turned out to be a critical one for the 66 acres of land, known as “Buxton Lane,” along the southeast corner of Hopkins Forest. It was a morning like any other--researchers from Williams and local volunteers rubbed their eyes, pulled on their Wellingtons, gathered their buckets, and made the soggy seven-minute schlep south from the Rosenberg Center through the woods and fields to the adjoining parcel of land where there lay a pair of small, partially frozen ponds.

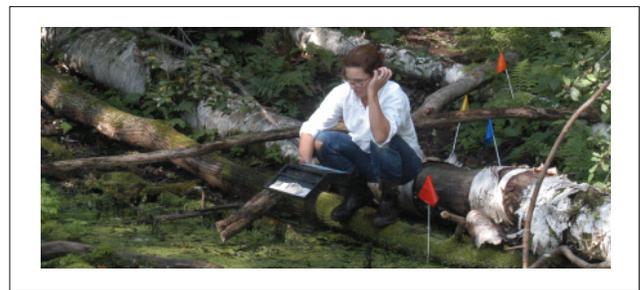
What they would soon discover would set the fate of this scenic assemblage of rolling fields, woods and wetlands on a winding and unsettled course for the next year-and-a-half. This saga--which was brought to its conclusion in the fall of 2007--does have a propitious ending thanks, in part, to a most unlikely four-legged character.



Jefferson's Salamander

There in a bucket set in the ground (part of a pit-fall/drift-fence array designed to survey migrating amphibians) on the edge of the smaller pool lay a Jefferson's salamander (*Ambystoma jeffersonianum*), a species never before noted in Hopkins Forest or its environs. The crew greeted its stocky, seven-inch long discovery with excitement and surprise. Since that April Fools day 2006, several more chocolate-brown, bluish flanked Jefferson's salamanders have been found during routine checks of the pitfall traps. By contrast, thousands of closely related spotted salamanders, in addition to thousands of wood frogs and hundreds of red-spotted newts, green frogs and

spring peepers, have been counted as part of this ongoing study. But why are there so few Jefferson's salamanders at this site; what are they doing here and what do they signify about the pools and surrounding lands? The ensuing 2 ½ years of studies of these wetlands and their inhabitants by Williams students, faculty and collaborators, have begun to shed some light on these questions.



Student Reseacher at Buxton Lane

Of the dozen species of amphibians found at “Buxton Lane,” the Jefferson's are the most mysterious in many ways. First of all, what we call the “Jefferson's salamander” is not a true species at all, but a “complex” of two or more species—namely the Blue-spotted salamander and “true” Jefferson's salamander—and their hybrid offspring. The “parent” species have historically occupied largely separate ranges with a narrow zone of overlap in what is now Western New England, where hybridization has been occurring for thousands of years. This long history of hybridization events has left the Berkshires with a population that is a true genetic oddity: one that is made up of 99 percent triploid females--that is females that possess a third set of chromosomes.

As you might suspect, this unusually structured population faces some serious challenges in reproduction and self-perpetuation. Comprised of so few males, “unisexual hybrid” populations of Jefferson's salamanders appear to have evolved a tendency toward asexual reproduction or gynogenesis, by which females produce clones of

themselves. The downside to this strategy is that it cannot take advantage of the genetic recombination that sexual reproduction affords and is subsequently fraught with problems. This can sometimes be seen on an early spring walk in the Berkshires where--if you come across a mass of Jefferson's salamander eggs clinging spiral-like around a stick in a clear vernal pool--most will become unviable: the embryos will turn cloudy and die within a few days or weeks. Thus, of the few females that manage to find pools and deposit their eggs in the spring, most will fail to bring offspring into the world. This reproductive deficiency is clearly a major reason why Jefferson's salamanders are so sparse compared to other amphibians in our local breeding pools and throughout the Berkshires.

Due to its rarity and, in part, to its scientific intrigue, the Jefferson's salamander complex has been designated a "Species of Special Concern" in Massachusetts; this includes both parent species and the hybrid population found in the Berkshires. This status as a protected species means that state regulators view its habitat, both wet and dry, as unique and worthy of protection as well. It makes sense: how do you preserve an animal without protecting its home? Enter the 66 acres

on the edge of Hopkins Forest...

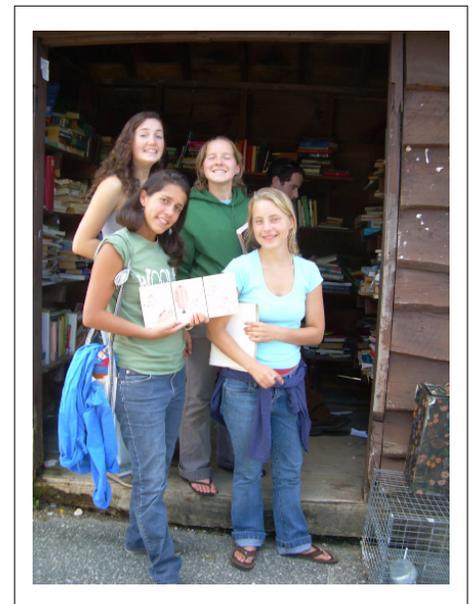
When Massachusetts state biologists received verification of the Jefferson's salamanders at Buxton Lane, they moved to designate a zone of protection covering a 300 meter radius from the pools where there were found. This prompted the partnership of investors who owned the land at the time--after much time conducting studies, consulting with state officials and environmental specialists, and analyzing their options--to sell it rather than forge ahead with a proposed development, which would have become more complicated in having to accommodate endangered species provisions. At that point, Williams stepped in to purchase the section of the parcel that included the vernal pools used by the Jefferson's salamanders and other amphibians; these 9 acres were added to Hopkins Forest. At the same time, local buyers anteed up to purchase the remaining 57 acres and enter it into a conservation restriction. Their actions will allow the wild denizens of the land to continue to roam free and future generations of Williams students and others to study and otherwise enjoy this distinctive area, much as they were doing on that fateful April morning in 2006.

Environmental Planning Workshop

By Clarence Fanto, Reprinted from On Campus 2008

When two seniors in Sarah Gardner's Environmental Planning class of 22 students, trying to identify a farm suitable for a Community Supported Agriculture (CSA) project, had a close encounter of the frightening kind with a herd of bulls during a site survey last fall, they handled the situation with cool presence of mind.

"There were half a dozen bulls charging up the hill at us," said Julia Sendor of Chapel Hill, N.C. "We stopped, realized we were in the middle of a field and couldn't exactly run away because they would catch us. So we just stood still for about 15 minutes and then we started walking away and they ran after us, surrounded us and started licking us." "It turns out they just wanted food -- not us as food, but they thought we were bringing them food," Kendell Newman of Newton, Mass., added. "They were very intimidating. We were frightened but we just waited, remained calm and chanted some Buddhist prayers, hoping they would listen and not charge us." The strategy worked, the bulls walked away



Planning Students at the Williamstown Transfer Station: Whitney Leonard '08, Zoe Fonseca '08, Liz Gleason '08, Julia Sendor '08

to search out their next meal elsewhere, and the two students emerged unscathed. Several months later, they laughed as they recounted the incident.

Sendor, Newman and classmates Whitney Leonard of Concord, Mass., and Liz Gleason of Newton, Mass., were conducting field research for their “client,” the Western Massachusetts Food Bank. The goal was to identify three potential sites as CSA farms to help the public, especially low-income residents of North Berkshire County, receive a weekly supply of fresh produce in return for an up-front financial commitment to a farm as members or shareholders. CSA farms are booming in the U.S., with more than 1,000 as of last year, compared to only 50 in 1990.

The goal was to reduce hunger in the seven-town area (North Adams, Adams, Williamstown, Savoy, Florida, Clarksburg and Cheshire) of 36,500 people by 10 percent in four years through an analysis of the three sites and a survey of community interest in CSA farms. Median household income ranges from \$27,000 in North Adams to \$52,000 in Williamstown, according to recent U.S. Census reports, compared to a national average of about \$40,000. A telephone survey of North Berkshire residents conducted two years ago by Market Street Research for the Food Bank’s “Target Hunger” project revealed that nearly 20 percent are “food insecure” -- within that group, 6 percent suffer moderate hunger and 5 percent suffer severe hunger, while the rest are uncertain about the consistency and reliability of their food supply.

The students conducted their own survey of 63 low-income families, with a substantial majority reporting less than \$25,000 annual household income. Most cited a ready supply of fresh produce in the region, but prices were considered out of reach. About 60 percent of the residents surveyed indicated at least some interest in joining a nearby CSA farm, preferably with a food pickup location near their homes. One-third of the residents expressed willingness to purchase full-price shares -- the average price people viewed as affordable was \$270 a year. The typical price range for a share in CSAs is \$400 to \$600. But a majority of more affluent residents were willing to pay extra so others could participate, and 70 percent of those surveyed expressed willingness to work on a farm in exchange for a price reduction.

All three sites surveyed -- the Gould Farm and the Moderski Farm, both in Adams, and the Foehl property in Clarksburg -- had pros and cons, but soil samples, accessibility and terrain considerations favored the Moderski site, already an operating farm.

The students explored land-use regulations and other legal requirements for a CSA. They found that agricultural land use is the “golden child” of zoning and other regulations in Massachusetts, and is exempt from zoning restrictions and from endangered-species and wetlands protection acts in the state.

They came up with a target price of \$500 for a full share; residents with incomes below \$25,000 or living in public housing, using food stamps or clients of Medicaid or Social Security would qualify for lower-priced half-shares. Partial, monthly payments rather than a lump-sum, up-front charge also could be offered through grants that would compensate the farmer in full at the beginning of the growing season. Produce, when available after distribution to members, also would be distributed at nearby farmers’ markets. Tax-deductible donations would be sought to reduce prices or even offer “scholarships” to the lowest-income residents.

The students estimated that the proposed CSA would yield a small operating margin based on \$15,000 in operating costs and \$23,500 in revenue from share payments; a U.S. Department of Agriculture grant would be sought for startup costs. Applications for other grants and loans also would be pursued. The fruits of the students’ research would be used by the Food Bank to create a CSA, possibly by 2010 or 2011.

Another student team surveyed the prospects of a recreational, mixed-use bike path for the Berkshire

Regional Planning Commission and the Mohawk Bike and Pedestrian Trail Committee. The goal was to identify the likely users of a recreational path between North Adams and Williamstown -- including families, commuters who normally drive between the two locations, and Williams College students, faculty and staff. The highly popular, 11-mile Ashuwillticook Trail linking Adams to the Pittsfield city line served as a model.

The proposed bike trail also would be aimed at reducing vehicle use and cutting greenhouse-gas emissions. The students focused their investigation on the safety and feasibility of the potential route, which would follow the historic Mahican-Mohawk Trail along the Hoosic River used by native Americans as well as by Ephraim Williams centuries ago. Taking the long view, the trail could have a regional impact as the western end of a trail stretching from Boston to Albany, N.Y.

The students -- Joshua Cantor of Otisville, N.Y., Ben Swimm of Madison, Wis., Ryan Dunfee of North Hampton, N.H., and Jared Oubre of Pleasant Hill, Calif. -- biked the potential mixed-use route and surveyed it on foot, identifying potential safety problems and preparing a GIS (Geographic Information System) map to help score sections of the proposed path for safety requirements. The bike lane would be 14 feet wide with two-foot wide shoulders on each side, minimal slope of less than 5 percent overall, as well as significant separation from the adjoining roadway (Route 2, including Cole Avenue and Massachusetts Avenue). Blind curves that limit visibility were cited as major safety challenges. A preference for an off-road trail was emphasized in order to enhance the recreational potential for a family of four.

During a public presentation on campus, the students utilized power-point data presentations, including nine-layer, color-coded GIS maps and dual scorecards measuring feasibility and desirability. The main roadway, cross streets and downtown North Adams streets were evaluated and given comparative, composite scores, with emphasis on safety concerns -- storm drains and other negatives.

Positives included accessibility to centers of activity such as schools, YMCA, the Massachusetts Museum of Contemporary Art (Mass MoCA) in North Adams and, not least, the Williams campus and downtown Williamstown. Potential negatives include compromised safety in congested areas, especially in North Adams, as well as neighborhood concerns about the proximity of the trail. Alternate routes were suggested in order to reduce or eliminate these problems. The results of the study will be used by the regional planners to pursue Federal funding and state grants for further evaluation of the proposed trail.

The four other projects undertaken by Gardner's students included "Greening the Pittsfield Municipal Vehicle Fleet"; a study on reduction of unnecessary car use on the Williams campus; a local approach to composting food waste at Williams, and a survey of recycling solutions for Williamstown.

The results of the Pittsfield study were presented to the City Council for evaluation, and there was extensive media coverage on several of the projects in The Berkshire Eagle, the North Adams Transcript, on local cable TV in Williamstown and on WAMC Northeast Public Radio in Albany, N.Y.

Gardner, a lecturer in environmental studies and associate director of the Center for environmental Studies, teaches the environmental planning course each fall. "Each student," she says, "spends an estimated 100 hours on the assigned project during the semester."

She is considering projects for next fall involving the Berkshires as a non-attainment zone under the Clean Air Act, a energy assessment for Jiminy Peak Resorts, a plan for a nature center at the Williamstown Rural Lands Foundation, and a property and trail map and guide for the Town of Williamstown.

"I think of the course as the class 'where the rubber meets the road' for our environmental studies students," Gardner said. "They've all studied ecology and read the classic environmental texts from Thoreau to Hardin, and they've studied national and international policy, but in this class, they experi-

ence what it's like to actually make something happen. The community is the classroom, community leaders and citizens are the clients, and it becomes clear to them as the semester progresses that what seems like a simple and good idea, such as improving a town's recycling program, is incredibly complex at all levels: social, economic, political and logistical. Experiential learning in the real world is quite a bit messier than traditional learning through reading documents and studying texts." Gardner was assisted during the fall 2007 semester by attorney Elisabeth C. Goodman, a visiting lecturer.

Each summer, Gardner develops the projects; she and the students visit each site and meet with the client who benefits from the research. Students in her course rank the projects according to their preferences, and usually get their first or second choice. She praised the student teams for "uncovering excellent information, conducting important research and producing useful reports" despite the usual difficulties and obstacles. "It was chaos during the last weeks of the semester with last-minute data collection and revisions, and multiple dress rehearsals," she acknowledged. "But, all six teams came through with flying colors at the end and I was quite pleased." "I was most surprised at how immediately interested people were" in the CSA farm project, said Whitney Leonard. "People really do care about the freshness of their produce, about affordability and whether it's locally grown. It impressed upon me how important a project like this is." Liz Gleason also was impressed by how "incredibly possible and accessible this project is going to be; it's really taking off right now and really can happen." "Most people who hear our statistics on hunger in the North Berkshires are pretty surprised by how high it is, and how it's such an invisible problem," said Julia Sendor. "Our project is pulling together this interest level that surprised us all and the hunger that surprised us all, and with the amount of energy and interest, it's really exciting."

Alumni Notes

Bob Bendick '68

I am changing positions at The Nature Conservancy, moving from Managing Director of the Southern U.S. Region to Director of U.S. Government Relations for TNC. In this new job I will be heading U.S. advocacy activities from the headquarters office in Arlington, Virginia.

Suzanne Reed '70

I graduated from Smith College in 1970, but consider myself a 1970 Williams Alum since I matriculated at Williams as an "experimental co-ed" in 69/70. An Environmental Sciences major, after graduation I became a Professional Staff Member on the US Senate Interior and Insular Affairs Committee, then Chaired by US Senator Henry M. Jackson. This is now known as the US Senate Committee on Energy and Natural Resources. From there I went on to complete my Masters Degree at the Yale University School of Forestry and Environmental Sciences.

I briefly returned to the US Senate as a Legislative Aide to Senator Joe Biden, but then accepted a position in California Governor Jerry

Brown's Office of Planning and Research. After 18 months there, Governor Brown appointed me Commissioner of the California Energy Commission where I spearheaded programs in residential and commercial energy efficiency and the development of alternative fuels.

After serving on the California Energy Commission, I pursued my career both in and out of the public sector, but always oriented myself toward influencing environmental public policy and environmentally oriented changes in public attitudes and behaviors. From 2000 to 2006, I was Chief of Staff to an Assembly member in the California State Assembly, where one of their major environmental policy objectives was promoting transit options and transit oriented development.

Currently, I am the California Program Director for the Center for Clean Air Policy, an environmental think tank based in Washington DC that is involved in local, state, national, and international climate change policy. My focus in California is assisting in the implementation of the state's landmark climate change legislation, AB 32, The Global Warming Solutions Act of 2006.

My pride and joy are my son Michael, a 2004 graduate of Southern Methodist University, and my daughter, Diana, a 2006 graduate of New York University.

My avocation is riding horses competitively in Hunter and Equitation classes and breeding Warmblood horses for amateur and professional US and international competition. My horse breeding website is www.Serpentinefarm.com

Peter Thayer '78

After 19 years as the Head of Middle School at Lancaster Country Day School (my third school since graduating from Williams in 1978), I have accepted the position of Head of School at St. Anne's Episcopal School in Middletown, Delaware. I will be the second head of school as they enter their 7th year of operation. One of the things that attracted me to the school was that they are deeply committed to environmental stewardship, and it was written into one of the founding principles of the school. The campus sits on 125 acres that are owned by St. Andrews School, where Tad Roach (class of '79) is the head of school.

Hal Sprague '79

Since April 28 I have been employed as a Senior Policy Associate at the Center for Neighborhood Technology in Chicago. You might want to look at the website (cnt.org) to find out more about our programs. In short, CNT is an urban sustainability practices "think and do tank", which is involved in Climate Change, Energy Efficiency, Transportation and Housing, and Stormwater Management. The last is my area, and I am working on getting green stormwater infrastructure best management practices adopted by municipalities, counties and states wherever I can, mostly in the Chicago area. I am loving it, partly because I am using more of what I spent time on in my masters program in Water Resource Management.

Jim Neumann '84

I am a Principal at Industrial Economics in Cambridge, MA, where since 1991 I have been engaged in a wide variety of economic analyses of environmental issues, working mainly as a consultant to the U.S. EPA. I focus on air pollution and climate change policy. Over the years I have had the good fortune to hire several very talented Williams CES alums; the most recent is Emily Wasserman '07; others include Chris Warshaw and Harriet (Greenwood) Ragozin. I recently en-

joyed a visit to Williamstown to participate in the Center for Development Economics sponsored conference on climate change impacts in developing countries, where I shared thoughts on how sea-level rise will affect developing countries, and what is needed to help these countries effectively plan for those impacts - since it's now clear that even extraordinarily aggressive climate mitigation policies will not be sufficient to avoid potentially damaging effects. My current projects include analysis of the effect of carbon policies on low-income households, climate change impacts on Alaskan king crab fisheries, and benefit-cost analysis of EPA's proposed tightening of airborne lead standards. I live in Lexington, MA (a short 6.5 mile bike ride to work along one of the most highly utilized rail-to-trail corridors in the country) with my wife and two kids. If any CES undergrads or alums have an interest in combining an interest in environment with economic and policy analysis, look me up, I'd be happy to talk to you.

Peg Stevenson '84

I've worked for the City of San Francisco for ten years, and this past year am involved in an exciting effort to improve the mass transit system--trying to cover more of the city, get a larger share of the trips, speed up the system overall and make it more reliable. It is fascinating to work with transit planners and to hear what the citizens think and value about transit. I'm still convinced, as I was while at CES, that trains and condoms are going to save the world. It is fun to be working for a city government that is trying to address climate change, health care, and many other critical areas, environmental and otherwise where the federal government has failed in its leadership, leaving states, cities and towns to try to find our own solutions.

Mary Keller '87

I am beginning work on a collection of essays titled "The Souls of Wyoming" that will reflect on the relationship of indigenous, immigrant, settler, and migrant communities, particularly as reflected in place names and working relationships with the land. A second project, The Wyoming Cultural Landscape Project, will create a virtual map of Wyoming with links to place names, beginning with indigenous place names, including audio and video links to Shoshone, Crow, and other Native language speakers telling stories about significant places. I am interested in discussing these ideas

with any of you engaged in cultural geography, philosophy of consciousness, or “place” studies. Always interested in saying hello to CES travelers to Cody and Yellowstone. Between the energy boom, the Buffalo Bill Historical Center [and its natural history museum (the Draper)], wolf re-introduction, the interface of four-wheelers and trail conservation efforts, the contrast between Buffalo Bill and John Wesley Powell, or the aftereffects of the fires of ‘88 in Yellowstone, Cody would make a great base for myriad summer or winter research projects and I would do my best to help, including offering a guest room.

Marna Schwartz ‘87

I work as a pediatrician at a nonprofit Native Health Corporation in Juneau, Alaska where I live with my husband, Stuart Gerger and two daughters, Dessa (6) and Tahlia (3). Happy to try and meet up with any alums passing through.

Mary (Taylor) Miller ‘88

Our family runs a guest ranch here in the Altar Valley southwest of Tucson, Arizona. Along with some ranching neighbors, we’ve worked on many conservation projects in the valley under the banner of the Altar Valley Conservation Alliance. We work on fire management, restoration, land protection, and promoting the general idea that ranching and conservation can work together well. My Williams CES education has been put to good use! I’ve also had fun helping to get a desert garden and tortoise habitat going at my kids elementary school.

My kids Alicia (9) and Clara (11) are lots of fun! So that’s a bit of news!

Kin Ma ‘89

I am an Assistant Professor of Geography at Grand Valley State University in the Grand Rapids, Michigan area. My journey toward Geography began with my involvement with the Purple Druids back in 1986-1987 when Sara Thurber ‘86 and many others were active in criticizing the environmental assessment of Mt. Greylock Ski Resort Development.

I was recently approved for a grant to study apple orchard disease. The project is entitled: *Use of Remote Sensing Images and Geo-spatial Analysis to identify fire blight disease in apple orchards*, and the project will take place in the summer of 2008, with a budget of \$2860. In addition, for my family life, I am married to a Ko-

rean lady who has studied agricultural economics at Michigan State University. I also have a 9.5 year old daughter, ShiShi, and a 4.5 year old son, Joshua.

Lisa West ‘89

I now live in West Des Moines, IA, where I teach American and environmental literature at Drake University. One of highlights was a new class on “Politics and Nature Writing,” which focused on contemporary texts and the differences between “thinking” and “doing.” Lots of fun books and movies, including *A Civil Action*, *Living Downstream*, *Omnivore’s Dilemma*, *Gorillas in the Mist*, *Prodi-gal Summer...* And as part of Drake’s initiative at getting learning “outside the classroom,” we all (including me) had to devise an activism project and discuss the role of reading and/or writing in that project. Projects included changing eating or shopping habits, going without a car for a month, working at a local composting facility, publishing a newspaper article, and participating in passing local legislature. It was exciting to see the interest in “green” things among current college students and amazing to see how many things the class “did” in addition to reading books and writing papers. On the personal level, I am getting outdoors a lot but not doing anything exciting on the outdoor front. I feel like I live on a mini-campus; while it is very suburban, it is within easy biking distance from library, bike trails, a large park, schools, and a pool; so it really is possible to get away from the car for significant stretches in good weather. One of my kids’ (age 8 and 5) favorite thing to do after school is to bike up to the library and nearby pond to get a snack, some books and watch the ducks. I am hoping this summer they will be strong enough to bike to the pool.

Kate Holliday ‘91

I’m a class of ‘91 Art History/Environmental Studies Graduate – I’m now teaching architectural history in the School of Architecture at UT-Arlington. My classes deal with straight architecture history and theory as well as history of urbanism and cultural attitudes toward space and environment. One of my courses is “Nature and American Architecture,” another is “The Life of Cities.” I just published my first book on the architect Leopold Eidlitz, “Leopold Eidlitz: Architecture and Idealism in the Gilded Age.” The title doesn’t make it sound terribly CES-related, but Eidlitz was the

first American architect to craft a theory of organic architecture based partially in Emersonian transcendentalism and Enlightenment attitudes toward nature. (Eidlitz was also one of the architects of the New York State capitol at Albany, a building I first visited during a cross-listed Art History/Environmental Studies course co-taught by Sheafe Satterthwaite and E. J. Johnson.

Irena Hollowell '02

I am traveling again! Last January I arrived in Thailand, where I went on a Sustainability Study Trip organized by Pun Pun organic farm. "Pun Pun" is two different words in Thai and means "Thousand Varieties." We visited various projects with truly amazing dedication to their work. To me, the most inspiring of all was the Santi Asoke network of communities that grow their own organic food, make toiletries and as many of their own things as possible, use little, share all their resources, follow Buddhist precepts, get up at 3 am every morning, run schools, teach many workshops, run a TV station with money earned by selling donated recyclables, and require that anyone who donates money to them must visit seven times first. Visiting Santi Asoke, I was amazed by people's quiet attention to all the life that surrounds them.

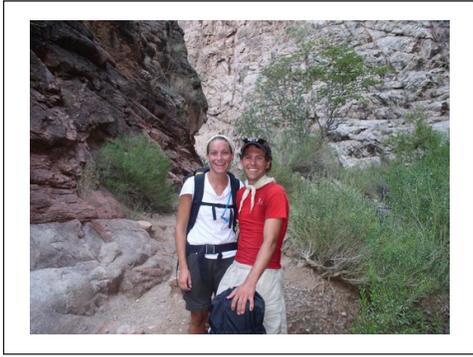
After the trip, I stayed for a couple months at Pun Pun, outside Chiang Mai, collecting seeds, processing seeds, weeding, taking the kids swimming, and doing touch-ups on adobe buildings that were made in various Pun Pun workshops. (Theoretically, their area gets too much monsoon rain for adobe building, but it's working, and their cement foundations are really only to stop termites.) Pun Pun started four years ago, with what was then a degraded, infertile piece of land covered in thorny weeds. It has already become a source of a great variety of foods, and includes 10 adobe buildings as well. It seemed strange to me that for Pun Pun, the main growing season is the dry season. In the wet season, Peggy and Jon go to Colorado, where she is from, and where they also give some workshops in sustainable building. Panya Project, neighbors of Pun Pun, also offers workshops in sustainable building and in permaculture, and by volunteering to be an assistant, I got to sit in on a permaculture course. Then, as the rains became more frequent, I also left, and came to Sadhana Forest, a reforestation project on the edge of Auroville (perhaps the world's largest intentional community) in Tamil Nadu, South India.

Sadhana Forest, like some projects from the trip in Thailand, shows an amazing degree of dedication to sustainability and regeneration and non-violence. Here, this degree of dedication is exemplified by veganism. Every morning we rise at 5:30 and do our hardest work until 8, while it's still relatively cool. As the rains here are just starting, we are digging holes for planting native trees (160 species included so far) and building berms for stopping runoff. All our electricity is solar; all our toiletries are biodegradable; all our huts are open, simple, and made of natural materials. Five days after my arrival, I became a Volunteer Welcomer here. And everyone is welcome, regardless of such factors as age, physical ability, educational background, etc. Many travelers come only for two weeks. Many wonderful people come and go and come back.

Until November, I will probably be in India. When I leave Sadhana Forest, it might be to go to another Auroville farm. This January, I hope to be at an Ecovillage Design course at Wongsanit Ashram, near Bangkok. After that, I don't know which intentional community I'll be in - or which country.

Chrissy (Fletcher) Patrick '02

I am living in Washington, DC and working for the National Oceanic and Atmospheric Administration (NOAA) as a Knauss Sea Grant Fellow in the Office of Ocean Exploration and Research. I've been doing a lot of writing and editing in my position, and have contributed to the Office's award-winning website, www.oceanexplorer.noaa.gov. If you have a second, check out some of the amazing photos and daily logs from the researchers we have funded to do ocean exploration. I promise it will be things you've never seen before! At work, I'm also part of the NOAA team working with the Smithsonian Institution on Ocean Hall, which opens in late September. I'll be finishing my thesis soon, which focuses on the closed fishing areas in New England. Outside of work, I'm working with the local Surfrider chapter, The Coastal Society, and Metcalf Institute for Marine and Environmental Reporting. I've also been helping to keep the Williams Social Choice Fund running and growing (feel free to help us!). My husband, Wes, (who also works for NOAA) and I are planning to stay in DC for a while, so if you're around, drop us a line!



Garry Sanders '02, and Carly
in the Grand Canyon

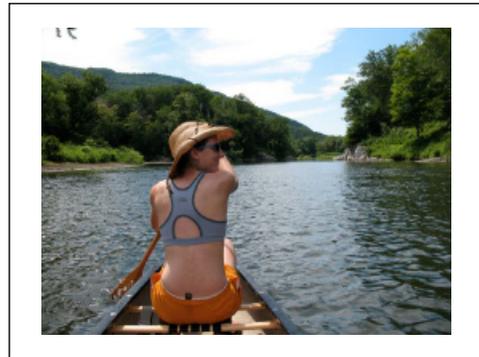
Garry Sanders '02

In the meantime, a brief update about me. I am currently finishing up my Master's program in Biology at Grand Valley State University. My thesis has been studying the food web linkages between cyanobacterial mats, macroinvertebrates, and fish surrounding groundwater vents in Lake Huron. These newly discovered groundwater vents are similar to marine hydrothermal vents in that the outflowing water is high in sulfides and chlorides but very low in dissolved oxygen. However, the outflowing water is not thermally altered like marine vents. This creates unique ecosystems that affect the macroinvertebrate and fish communities surrounding the vents. When I'm not in the lab or in the field, I have been enjoying getting to know Michigan with my girlfriend Carly and our

dog Maggie. We have been canoeing quite a bit and enjoying the beach. I cannot wait to see the new CES in a couple of years and I hope all of the fellow CESers are doing well

Kimmie Beal '03

Life is good in Vermont for Angus and me. I am working on wrapping up an ms thesis on the effect of climate change on the elevation of treeline in New England. Angus and I just got back from Katahdin. We've been enjoying drifting down the Winooski river in our canoe, "Salty Sal" and taking care of our veggie garden and 8 backyard chickens.



Kimmie Beal '03 paddling
down the Winooski River





Environmental Studies Concentrators

Center for Environmental Studies
Doug Gollin, Director
Sarah Gardner, Associate Director
Drew Jones, Hopkins Forest Manager
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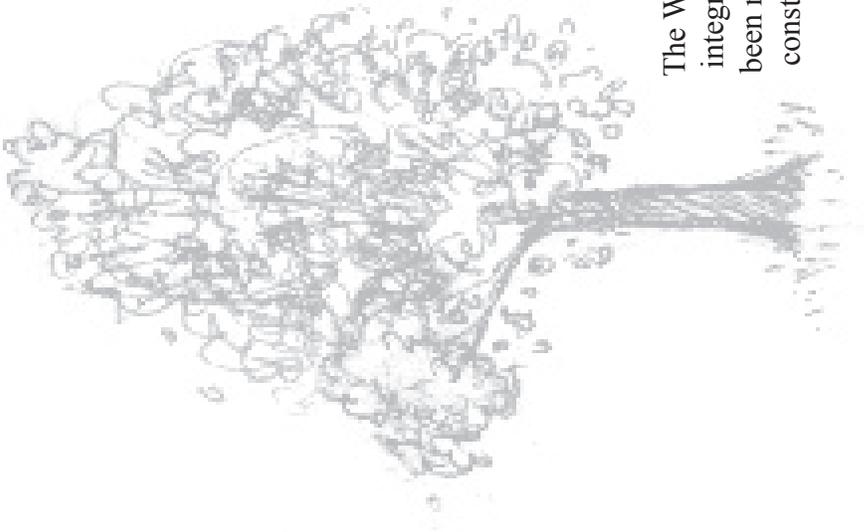
Field Notes
Editor: Sarah Gardner
Layout: Brad Culley '11

Keep in touch with CES alumni through the Alumni Notes. Send updates for the next issue to: sgardner@williams.edu

The Center for Environmental Studies

Williams College
P.O. Box 632
Williamstown, MA 01267
<http://www.williams.edu/ces>

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A PUBLICATION OF THE CENTER FOR ENVIRONMENTAL STUDIES

The Williams program in environmental studies allows students to focus some of their elective courses in an integrated, interdisciplinary study of the environment—that is, the natural world, both in itself and as it has been modified by human activity. The program provides students with the tools and ideas needed to engage constructively with the environmental and social issues brought about by changes in population, economic activity, and values.