# SKIDMORE COLLEGE ENVIRONMENTAL STUDIES PROGRAM

# Greetings from the Director

In June, I had the pleasure of attending the annual conference of Association of Environmental Studies and Sciences (AESS). The conference gave me an opportunity to revisit Portland, Oregon, a city I have come to admire for its natural beauty and leadership in sustainable living. It was also a pleasure to spend the time at the conference with Skidmore and Environmental Studies colleagues and Environmental Studies alums. While moving from one session to another during the conference, I realized that my choices were paralleling those of another attendee who always managed to bring the discussion around to the same grim question. Despite her best efforts in her classes, she explained, her Environmental Studies students always seemed to end the semester depressed and pessimistic because of the dire state of the environment.

It's easy to understand why students of Environmental Studies-faculty and students alike-might be a depressed and depressing group. The daily reports of the repeated failures to cap the BP oil well in the Gulf were the background of the summer of 2010; even though the well is finally capped, the scope of the environmental damage has yet to be fully realized. I'm sure many of us are still haunted by images of oil soaked pelicans. Meanwhile, the debate over hydraulic fracturingfracking-in the Marcellus Shale region beneath New York State continues. The science behind global warming grows in strength, yet the politics and policies responding to Climate Change seem to be floundering in their conviction. Wildfires blazed throughout Russia this summer while flooding in Pakistan has left an already fragile country devastated. If part of the purpose of Environmental Studies is to solve the problems confronting environments throughout the world, it takes a strong character just to see beyond the problems to potential solu-

Yet the Environmental Studies students and faculty I worked with this summer and whom I've been meeting with early in the fall semester don't

seem overwhelmed with doom and gloom. Perhaps this is because they have come to understand that while analysis and problem solving are important approaches in Environmental Studies, they are not the defining reason for Environmental Studies. That reason lies in the pursuit of understanding our environment and the interweaving ecosystems that make it up. As part of the summer Collaborative Research Projects, senior Nick Liu-Sontag worked with faculty members Karen Kellogg (Environmental Studies) and Alex Chaucer (GIS) on "Visualizing Changing Landscapes and Resource use in the Saratoga Lake Watershed." Their research uncovered not only the deforestation and development that one would expect, but also reforestation and resilience. In another Water Resources Initiative Summer Project, senior Claire Superak and faculty member Cathy Gibson (Environmental Studies) asked, "Do you eat what you are?" Studying the uptake of nitrogen and phosphorus in headwater streams, the team gained a better understanding of how controls on nutrient uptake help manage these systems and prevent excess nutrients from moving to downstream ecosystems. Like many other Environmental Studies students, senior Maranda Duval returned to Skidmore this semester after studying abroad. Maranda spent her junior year in the "Rethinking Globalization" program, traveling in Tanzania, India, New Zealand, and Mexico, examining how Western ideas of progress and development impact communities around the world. Although she left the program with "a feeling of profound confusion," Maranda also gained a "greater sense of clarity" from her study abroad experience.

It is the sense of wonder, insight, and clarity that informs so much of the work that we do in the Environmental Studies program at Skidmore and that saves us from gloom and pessimism. Whether walking through our own North Woods, kayaking on the Kayaderosseras Creek, doing research in the Merck Experimental Forest or studying "Sustainable Mobility Solutions,"

"Business and the Natural Environment," or "Literature and the Environment"—just a sampling of the courses in the Environmental Studies Program this fall—there is something of a celebration of the Earth in all our work.

And it is all our work—from "Watershed Assessment" to Environmental Art-that I look forward to embracing as the new Director for the Environmental Studies Program. Karen Kellogg has left big waders for me to fill when she stepped down as program director, but I look forward to the opportunities and challenges. I imagine that to many of you, it may seem strange to discover that the new Director of Environmental Studies is an English professor. But having an English professor as the Environmental Studies Director speaks to the very nature of our program: interdisciplinarity. It's worth revisiting our mission statement at this moment. There we explain that the purpose of the Environmental Studies Program is to "investigate the interrelationships among cultural traditions, social change, and institutions, and the physical and biological environment in which we live." It is not the sciences alone that can give us that knowledge, nor is it the arts, literature, or public policy alone that can give us that understanding. It is the interrelationships—the interdisciplinarity—of our Environmental Studies Program that best prepares us as students to meet the problems and embrace the celebrations of our changing environment. Contact: mmarx@skidmore.edu



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# Faculty Profile: Amy Frappier

An assistant professor since the start of the 2009 academic year, Amy Frappier has brought her passion for the climate and its natural extremes to the Skidmore classroom. Pursuing her fascination for the natural world, Frappier earned her Ph. D. in Earth and Environmental Sciences from the University of New Hampshire in 2006 and taught for three years as an assistant professor at Boston College before coming to Skidmore. Throughout her professional career, Frappier has earned numerous research fellowships including the

NASA Earth System Science



(E.S.S.) Fellowship and the Science to Achieve Results (S.T.A.R.) Fellowship. She currently holds the Charles Lubin Family Chair for Women in Science.

Frappier explains, "I'm really interested in climate change, specifically how climate affects extreme events." Frappier explored her passion for extreme occurrences when she conducted her doctoral research on the geologic record of stalagmites from Belize and Central America. Through her studies of the chemical composition of the rocks, Frappier was able to determine at what point in history large hurricane events took place. By creating this "geologic archive," Frappier and colleagues can now extend the historical record and recreate storms that "as I like to say, our ancestors experienced but that we no longer remember." Through her

research, Frappier broadened the historical perspective of extreme events to more fully understand the changes we are seeing in our climate today and expecting to see in the future.

Since arriving at Skidmore Frappier has taught Climatology (GE 211), a Special Topics course on Global Biogeochemical Cycles (GE 351), and Oceanography (GE 112). She has co-taught the Senior Seminar in Geosciences (GE 377) with Kyle Nichols and Richard Lindeman. In addition, Frappier is currently teaching the Scribner Seminar Dangerous Earth (SSP 100-007) this fall, which explores how climatologic and geologic dangers impact our lives and activities as humans. The class examines the causes of natural disasters and strives to explain how seemingly random natural disasters can be understood and predicted. Her students examine current and historical extreme events and study how these events affected different cultures in different parts of the world.

Frappier's students are not simply learning about extreme events themselves. They are sharing what they learn as part of a weekly radio show for WSPN entitled Red Alert! Frappier explains that in the radio show students discuss various extreme events in a broad sense, but beyond that "It's really up to them to take it and run with it—creative thought matters." Frappier feels that the radio show has been a great opportunity for students to express themselves and share their knowledge with the Skidmore community—"It fits with the 'mind and hand' idea here, which is that we're learning but we're also applying that information to share it with others and hopefully make the whole community more aware of natural hazards and the different roles that they play in society." Contact: afrappier@skidmore.edu

# Student Awards and Accomplishments

Nadine Dodge '10 (Social & Cultural Perspectives Track) and Dawn Harfmann '10 (Environmental Science Track) received the 2010 Environmental Studies Faculty Award. The honor is awarded annually to two outstanding graduating seniors, one in each track of the major, who, through academic achievement, community engagement, and leadership, demonstrate exceptional promise in addressing environmental issues. Nadine is currently working as an Environmental Specialist at Triumvirate Environmental based out of Boston, MA. Dawn is currently working as a research technician at Ecovative Design out of Green Island, NY. Ecovative is a biomaterials company growing replacements for foams and plastics using mushroom technology that has won multiple grants and awards.



Jenna Gersie '10, recipient of a Responsible Citizen Internship Award (RCIA) worked this past summer at the Sea Turtle Conservation and Research Program helping to monitor loggerhead and green sea turtle activity at Mote Marine Laboratory in Sarasota, Florida. Jenna also won a prestigious Palamountain Prose Award for

work from her ES honors thesis Wings and Words: A Field Guide to the Birds of North American Environmental Literature.

Follow our Student Achievements any time on the ES Web Page!

<u>Jakob Schenker</u> '10, another RCIA recipient, worked with the Reef Artisans Collaborative Inc (RACI) in Indonesia. His work focused on various projects including a hydroponics program and a youth camp focused on sustainable development and ecological conservation.

Kate Ito '11 received the Barnabas McHenry Hudson River Valley Award. Findings from her research on how a National Park designation could effect the Hudson Valley's economic, environmental, social and natural institutions will be displayed on OurHudson.org.

Students in Professor Alison Barnes' course in Environmental Art (ES 351) created six installations in support of the 'Focus Skidmore' initiative. These installations, composed of recyclable materials, were featured in the 2010 Academic Festival.

**Photo**: Students construct sculptures made of recyclable plastic bottles on the green.



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## Alumni Profile: Peter Olmsted

Since graduating in '03 with a major in Environmental Studies and a minor in English, Peter Olmsted has explored the diverse career possibilities that Environmental Studies offers. Peter has engaged in a variety of environmental issues ranging from the preservation and stewardship of farmland in Lancaster County, PA, to investigating sustainable energy policy at the University of Delaware's Center for Energy and Environmental Policy. With this technical, hands-on experience Peter has developed a better understanding of the many diverse and complex environmental issues.

As the land preservation coordinator for 4 years with Lancaster Farmland Trust, Peter focused on protecting the fertile agricultural lands of south-central PA through the acquisition of perpetual conservation easements and advocacy of soil and water conservation practices. "Lancaster County has a remarkable agricultural heritage," comments Peter. "It is amazing to see the community's dedication to this landscape, and I'm thrilled to have had the opportunity to contribute to ensuring that Lancaster farming remains vibrant for generations to come." With career aspirations to address the intersection of energy and environmental issues, Peter decided to follow his passion and pursue an advanced degree at the University of Delaware.

In 2010, Peter earned a Master of Energy & Environmental Policy, and received the 2010 Energy & Environmental Policy Excellence Award in part for his thesis work on the evolution of energy efficiency strategies within the electricity sector. "Graduate school was an invaluable experience," says Peter. "In addition to researching some of the most pressing energy and environmental issues of our time, my program offered some truly unique opportunities for putting theory into practice."

Most notably, Peter was selected as the 2009-10 policy fellow to Delaware State Senator Harris McDowell, III a leader in energy policy throughout the state and across the country. In this role, Peter assisted Senator McDowell in drafting and passing legislation to expand the state's commitment to deploying renewable energy resources. Peter comments, "While our federal government struggles to adequately address climate and energy concerns, many states across the country are filling very critical roles."

Peter has just recently been named the Mid-Atlantic Solar Policy Advocate for the Vote Solar Initiative (<a href="http://www.votesolar.org">http://www.votesolar.org</a>), a San Francisco



based non-profit organization with the mission of advancing solar energy resources through policy development and advocacy. He will be in charge of the establishment and operation of a new office based in PA, where he will be responsible for working with the solar industry, lawmakers and other stakeholders to advance this pillar of sustainable energy in the Mid-Atlantic states.

Peter lives in Lancaster, PA with his wife Betsy Motter Olmsted '02, their son Emmett and their dogs Winnie and Mabel. Peter and his family visit Saratoga Springs whenever they can and are thrilled to keep tabs on the exciting developments at Skidmore. "Having graduated with the first official class of Environmental Studies majors, I am amazed how this program has grown over the years," Peter says. "It is exciting to hear about what the college is doing both academically and institutionally, and I am sincerely indebted to my Skidmore colleagues who have helped to shape my career."

# Faculty Highlights

Cathy Gibson and Josh Ness, along with ES-affiliated faculty, Kim Frederick (Chemistry), David Domozych (Biology), and Heather Hurst (Anthropology), were awarded a \$550,000 National Science Foundation grant for a two-year project to establish the new Skidmore Analytical Interdisciplinary Laboratory (SAIL). SAIL is a suite of analytical instruments that allows our faculty and student researchers to garner information about the

elements and molecular composition of their focal research system. With SAIL, Skidmore faculty and students gain access to state of the art analytical instrumentation, enhancing research possibilities and student training. Gibson (on right) also appeared on the local news and in multiple local papers commenting on her discovery (along with her students) of an invasive algae in the Kayaderosseras Creek

Karen Kellogg wrote feature essays for the <u>Lives of the Hudson</u> exhibition at the Tang and for the upcoming <u>Environ</u>-

ment and Object in Recent African Art exhibition. She also became one of the founding members of the National Council for Science and the Environment Energy Education Working Group. The

Working Group developed a proposal that is currently being reviewed by the Department of Energy: "Transforming Energy Education for Sustainability."

Kim Marsella was one of two 2010 faculty recipients of a Skidmore College President's Award given in honor of her "endless dedication to the College through exemplary commitment to personal excellence, campus pride, and community service."

Josh Ness received a civic engagement award to support a twoweek collaboration between a dozen Skidmore students (including first year students) and Merck Forest and Farmland Center in Rupert, VT (see photo on page 4). The students helped identify links between Merck's logging history, rare herbaceous plant communities, and nutrient retention within watersheds in the forest. Ness and Doug Morin '07 published an article in Oikos that used fieldwork in Skidmore's North Woods to identify a new keystone species in eastern deciduous forests.

Kellogg and Ness team-taught the <u>senior capstone research</u> seminar (see WRI insert). Throughout the year, ES students have been involved in numerous research projects, independent studies, and internships for various community organizations in Saratoga and across the world facilitated by the program.

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# Highlights from our 2009-2010 Events and Trips

<u>Lives of the Hudson</u>: The Environmental Studies Program, in collaboration with the Tang Museum and the "Lives of the Hudson," presented an amazing key-

note lecture this year by John Cronin, Director & CEO of the Beacon Institute, titled: Brains vs. Brawn: The Future Hudson,



which was followed by our annual Welcome Reception that featured internship opportunities with our local community partners.

In conjunction with this exhibit, a Dunkerley Dialogue was held at the Tang featuring Robert Boyle (founder of Riverkeeper, the Hudson Fisherman's Association, and the Water Keeper Alliance), and Tom Lewis, co-organizer of the exhibition and Professor of English, Skidmore College.

Our Focus the Nation, Focus Skidmore (FTN-FS) campaign continued to raise awareness about climate change throughout the local, national, and international communities. This year's campaign featured a lecture by filmmaker Jennifer Redfearn entitled Climate Change, Human Rights, and Forced Migration, in which she discussed her award winning documentary Sun Come Up, a commentary on

the first climate refugees of the Carteret Islands, Papua New Guinea. Additionally, Lucy Van Hook, an independent carbon consultant, discussed the Copenhagen proceedings in her talk "Debriefing Copenhagen from the Ground Up."

Jeff Goodell, environmental journalist and local author, gave a fascinating lecture on his newest book How to Cool the Planet: Geoengineering and the Audacious Quest to Fix Earth's Climate. Jeff will be teaching a new course at Skidmore in Spring 2011 titled "Writing about Global Warming".

Student Trips: Kim Marsella led a fall 2009 study day hike to Mount Hadley to help students get some fresh air and "de-stress" during midterms. The hike was in honor of Bill McKibben's 350 initiative and 350.org.

Marsella also led an educational trip to one of the PCB dredging sites on the Hudson River that



included 3 faculty and 25 students. In the spring she led a service learning field trip at a small local farm. Students helped prepare the field for plowing and cleared away brush to expand the fields as part of a larger initiative

called "Crop Mob" aimed at connecting our

students with local farms.





Above: Student Crop Mob! Left: Josh Ness and students at Merck Forest Please see:

http://cms.skidmore.edu/environmental studies/index.cfm for links to events, news, and many resources including internships, fellowships and jobs. Contact Kim Marsella: kmarsell@skidmore.edu

Follow the Skidmore Creative Thought at Work pages to see profiles of ES alumi including Amy Foss '02, Rebecca DiSciacci '05, Laura Wittman '05, Jenna Gersie '10 and Jakob Schenker '10. Take a minute to add your own profile under the "Tell Us Your Story" link. <a href="http://cms.skidmore.edu/ctw">http://cms.skidmore.edu/ctw</a>

Check out our ES Facebook page and LinkedIn Networks, too—we want to hear from you!

# New Sustainability Coordinator: Riley Neugebauer

Skidmore recently welcomed Riley Neugebauer as the new Campus Sustainability Coordinator, picking up where the previous Coordinator, Erica Fuller, left off. As Campus Sustainability Coordinator, Riley's task is to manage current environmental initiatives and to direct Skidmore in its movement towards a more sustainable future.

Riley hopes to work closely with faculty, staff, students, and groups such as the Campus Environment Committee (CEC) and the student Environmental Action Club (EAC), in order to develop a close-knit Skidmore community geared towards the creation of sustainable programs and personal behaviors. She will also reach out to the Saratoga community concerning community sustainability and the North Woods. Riley's ideas for the campus combine the continuation and acceleration of previous initiatives with fresh, new perspectives on environmentalism including, but not limited to: the completion of a climate action plan, installing a campus composting program, expanding of the North Woods stewardship and education program, promoting diversity and social justice in conjunction to sustainability, and raising general "eco-awareness."

Despite the broad scope of Riley's ambitions, her varied back-

ground in both management and hands-on work make her the ideal candidate for the task. Before joining the Skidmore community, Riley worked and trained in solar design and installation, community organizing, energy efficiency and youth leadership, as well as held a sustainability position at American University in Washington D.C.

Riley's ambitions and experience, along with her zeal for the progress of the Sustainable Skidmore initiative, make her an exciting addition to the campus and certainly a significant up-and-coming figure on

campus and we look forward to continued and meaningful collaborations with her and the sustainability program.

Contact: rneugeba@skidmore.edu

Sustainable Skidmore: <a href="http://cms.skidmore.edu/sustainability">http://cms.skidmore.edu/sustainability</a>



# ES in Action: A Photo Gallery



the help from devoted student volunteers (above).





Environmental Studies majors and faculty before (above) and during a canoe trip on the Kayaderosseras Creek (below) to kick off the start of the senior capstone seminar.



Josh Ness (above) in the new SAIL lab. See the <u>SAIL page</u> for more information and <u>pictures</u>.

ES students conduct research all year long; here two students are measuring dissolved oxygen in Loughberry Lake.



Dawn Harfmann '10 leads an educational tour of the North Woods for students and faculty (above).

A majority of our majors study abroad—Nick Liu-Sontag '11 (below) dancing as part of his cultural immersion on the <u>SIT India</u> program. Maranda Duval '11 (in green shirt on right; also, see page 1) in Tanzania as part of the <u>IHP Rethinking Globalization</u> year-long program. See our <u>on-line photo album</u> for more pictures and descriptions of student research on a variety of abroad programs.



Vince Weeks '10 taking in the <u>PCB dredging</u> operation on Roger's Island as part of an ES fall trip to the site with faculty, students and representatives from General Electric (above).



As part of her SIT Australia program, Claire Superak '11 (far right) hiked Cradle Mountain in Tasmania. Claire then did her independent study research with a University of Tasmania faculty member on a project evaluating rural tree decline and deforestation of degraded agricultural land.



2009 - 2010

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The Water Resources Initiative (WRI) at Skidmore College brings together students, faculty and community partners to investigate our local water issues. Through courses and research, WRI helps us better understand the multiple perspectives that influence how we interact with our water resources on both a local and global scale.

### Skidmore College



# Senior Capstone Projects 2010

Jenna Gersie '10

"The Capstone process is really like giving birth to a child," said Professor Josh Ness, who led the 2009-2010 Case Studies in Environmental Sustainability course along with Professor Karen Kellogg. The audience laughed; professors, students, and community members were gathered in Davis Auditorium to hear eleven student presentations, culminations of their research over the past academic year within the Environmental Studies major.



Turley, Leonard, Dibner-Dunlap, McGurk, and Rowen look on as Hammerstein describes the shared themes that run through all eleven projects.

Ness displayed photographs of the 22 seniors at work in the classroom and continued his analogy. Pointing to a picture of Jim Turley, Dana Leonard, and Stephanie McGurk wringing their hands, Ness described the worry that goes along with giving birth to a child, or project: you do your best and hope that it

turns out alright. In the picture, Eli Dibner-Dunlap and Zach Rowen, hands in pockets, take a step back to look at their partners' handiwork. While the analogy drew laughter, Ness was right about the effort, dedication, interest, and commitment that went into the research projects.

Though past Capstone projects were focused primarily on water issues, the Class of 2010 broadened its scope to explore a variety of environmental issues within the Saratoga Lake Watershed. Mel Ausanka-Crues and Stephanie McGurk began by introducing SWAN, or the Saratoga Watershed Awareness Network, an online education guide that the pair created to spread awareness about issues within the watershed. Using previous Capstone projects and their own research, the pair highlights the greatest threats to the watershed. Addressing topics such as development, impervious surfaces, water shortages, and septic system maintenance, Ausanka-Crues and McGurk also leave the website open to additions and encourage future students to contribute their research.

Next, Jenna Gersie and Malone Matson shared Native American myth and history with the audience. The respect that the Mohawk and Mahican people held for the natural world extended to their water resources, especially in the water-rich Saratoga area. Dependent on the waterways for travel, trade, and food resources, as well as on the medicinal springs for their healing powers, the First People of the Saratoga Lake Watershed set an example for sustainable treatment of the region and reverence for our natural resources.

Also curious about how humans relate to the natural world, Zach Rowen and Morgan Violette distributed surveys to community members to explore how living locations relate to environmentalism. The pair analyzed four groups of people: those who live in urban, suburban, or rural settings, or with streams running through or adjacent to their properties. As a result of the proximity of residents within the Saratoga Lake Watershed to outdoor recreation sites, including lakes, rivers, and streams, Rowen and Violette found that a majority of respondents spend time outside and are environmentally conscious.

While Rowen and Violette looked at individual properties to determine environmentalism, Dan Haro and Carolyn Raider explored subwatersheds within Saratoga's "Green Belt" to examine conservation efforts. After identifying these sub-watersheds as developed areas, forests, wetlands, open water, and grassland or shrub habitats, the pair recommended a watershed-based approach to protection from habitat degradation and fragmentation. Instead of conserving areas by a parcel-based method, protection of sub-watersheds would contribute greatly to the health of the Saratoga Lake Watershed as a whole.

Noting the problem of impervious surfaces within the watershed that Ausanka-Crues and McGurk described earlier, Eli Dibner-Dunlap and Vince Weeks explored the feasibility of using rain gardens to reduce stormwater runoff. In the Saratoga Lake Watershed, where 88% of existing residences are set on soils suitable for rain gardens, Dibner-Dunlap and Weeks suggest that government regulation and economic benefits are necessary to create an incentive for developers to implement the aesthetically pleasing and environmentally sound gardens.

Dawn Harfmann and Jakob Schenker were also interested in using plants to solve environmental problems. Instead of using plants to prevent runoff, however, the pair used duckweed and water fern in a lab setting to determine how these plants can remove nitrogen and phosphorous from water bodies. Such a process is called



Capstone students gaze thoughtfully at drawings and maps that explore the connections between the student projects.

phytoremediation and solves problems of eutrophication in lakes or ponds, such as the pond near Skidmore's stables. Duckweed and a combination of duckweed and water fern were found to be useful in removing nitrogen from eutrophied water bodies.

William Coffey and Nadine Dodge also explored how to solve an environmental issue on campus. The two conducted a study that examined the economic feasibility of creating a composting system on campus to deal with the food waste, horse manure, and lawn maintenance byproducts that the College pays to have removed. Coffey and Dodge found that a windrow composting system would be a cost-effective way to turn waste into a resource, and the pair designed a

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# Senior Capstone Projects 2010 (continued)

comprehensive proposal for the system to be implemented.

Moving from biological solutions to solutions through design and technology, Phoebe Gallagher and David Ornvold explored environmental sustainability in new home design, a central concern in light of Saratoga County's rapid growth rate. In an effort to understand why homes account for 20% of the United States' energy consumption and how that number can be reduced, the pair interviewed architects and builders to find that "shades of green" exist in the home design and development industry. Gallagher and Ornvold found that a client's desire for a green home was the strongest incentive for designers and builders, and that cost and a lack of environmental understanding were hurdles to building sustainable homes.

Dana Leonard and Derek Stork also explored green buildings, as well as other environmental practices, in three hotels in the Saratoga area. After interviewing people involved with the Green Hospitality and Tourism Partnership and Certification Program, as well as stakeholders at local hotels including the Saratoga Farmstead Bed and Breakfast, the Gideon Putnam, and the Hyatt Place, the pair discovered that such hotels across New York state are becoming ambassadors of the ecotourism movement in New York. To have green-thinking businesses such as these hotels in the Saratoga area is crucial, especially during the summer months when tourism causes the population in Saratoga Springs to grow and creates new pressures on water resources.

Shifting from a study of local businesses to a study of local farmers, Dash Hammerstein and Andrew Pfeifer examined agricultural and farmland protection easements in Saratoga County. The pair studied farm viability in the County by conducting in-depth interviews with 10 farmers. They found that the Purchase of Development Rights program is not an adequate tool to combat the recent and ongoing loss of local farms. In order to ensure a future for Saratoga County agriculture and sustainable food production, the pair suggests that public education and policies aimed at increasing the viability of local farms, especially through the stabilization of milk prices, are necessary.

A conversation about milk prices flowed naturally into something that every Saratogian can relate to: stopping at Stewart's Shops for a carton of milk. Harrison Shulman and Jim Turley ended the presentation session with an exploration of Stewart's "green" business practices: practices that are both good for business and good for the environment. The pair found that Corporate Social Responsibility does not need to be driven simply by marketing strategies, but that a goal to stay in business can accommodate local communities and an environmental consciousness.

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Skidmore College

From environmental history to current environmental issues, from campus problems to community solutions, the 2010 capstone projects explored a wide array of green topics within the Saratoga Lake Watershed. Studying a watershed does not involve only the water bodies themselves, but the interactions between humans, communities, ecosystems, and ideas. The Class of 2010 sought to not only examine environmental problems within the Watershed but to also suggest solutions. Whether they become biologists or business people, a rich future in environmental consciousness, initiative, and ingenuity awaits these students.



Senior Environmental Studies majors at Academic Festival

# 2010 Summer Collaborative Research Projects



Forest Health: A Matter of Ephemeral Plants versus Ephemeral Streams?

Gordon MacPherson '12 and Josh Ness, Assistant Professor of Biology and Environmental Studies

How Large Were Floods Caused by 19th and 20th Century Logging Dams in the Upper Hudson River Watershed?

Jonathan Reeves '12 and Kyle Nichols, Associate Professor of Geosciences

Linking Nitrogen and Phosphorus Uptake through Organic Matter Stoichiometry in Headwater Streams Claire Superak '11 and Catherine Gibson, Assistant Professor of Environmental Studies

### Redevelopment of the Adirondack Wilderness Experience

Leandra Cooper '13 and Kim Marsella, ES Program Lecturer and Coordinator

### Visualizing Changing Landscapes and Resource Use in the Saratoga Lake Watershed

Nicholas Liu-Sontag '11, Alex Chaucer, GIS Instructional Technologist, and Karen Kellogg, Associate Professor of Environmental Studies

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