



Greetings from the Director

Psychologist Carl Jung might have described it as synchronicity—when two causally unrelated events meaningfully occur together. That term fits my experiences this past June. Within a three-week period, I travelled to the University of Vermont twice to participate in seemingly unrelated conferences: an Association of American Colleges and Universities (AAC&U) workshop on High Impact Practices (HIP) and the third annual convening of the Association of Environmental Studies and Sciences (AESS). By the middle of the AESS conference, I expected to run into people I had met earlier at the AAC&U workshop. Nonetheless, as academics are wont to do, my mind insisted that these two conferences did indeed come together in a meaningful fashion. Synchronicity. And they did. I call it Eco-HIP HOP. Environmental Studies Programs (that's the "Eco") are built on high impact practices with high outcome programs (Thanks to my colleagues from Zayed University of the United Arab Emirates for the HIP HOP acronym).

The AAC&U defines [High Impact Practices](#) as activities "that are engaging to students and effective at improving both persistence and achievement of essential learning outcomes." As the workshop progressed, I was struck by how these high impact practices are fundamental to Skidmore's Environmental Studies Program. Our numerous opportunities—some required, some voluntary—for students to engage in deep learning and to apply their learning not only to other classes but also to their preparation for and transition into their post-Skidmore life characterize Environmental Studies. President Glotzbach calls such an approach "Transitions and Transformation." But while that initiative is decidedly future oriented, the high impact experiences in the Environmental Studies (ES) Program enhance the meaning and value of the immediate education of our ES majors.

Chief among the high impact practices of the ES Program is our capstone experience. Taught this past year by professors Karen Kellogg (ES) and Bob Turner

(Government), capstone asks students to develop, research, and write on a subject of personal interest that affects the Saratoga Lake watershed. For some students, the "high impact" comes from gathering original data and interviewing community members. For others, the collaborative nature of working closely with another ES major over an entire academic year is, as one senior described it, "a powerful experience." For all our majors, presenting their projects to members of the Skidmore community and experts from the greater capital district during the College's annual Academic Festival is a moment of great impact, a mixture of high anxiety and high accomplishment! The capstone projects from our 2011 majors are presented inside this newsletter and on the [Water Resource Initiative \(WRI\) website](#).

Students also find high impact experiences beyond their Environmental Studies classes. School year and summer internships allow students to apply their classroom knowledge to a professional setting and to enrich their classroom learning through practice. As students participating in the ES senior exit interview put it, the Environmental Studies major gives students broad knowledge, but an internship *focuses* that education. This spring, we awarded two summer internship grants to ES students thanks to the generosity of the Schow family (more on page 6). During the school year, Talia Arnow '13, Sarah Arndt '14, and Margot Reisner '14 served as interns to the Office of Campus Sustainability to introduce composting to the residence of the North Woods apartments. You can find a longer list of [internship opportunities](#) available to students on our ES website and at our new [Environmental Studies Internship Blog](#).

The opportunities to work collaboratively with a professor on a research project and to study independently under faculty guidance are much-celebrated high impact experiences at Skidmore. This past summer, Andrea Conine '13 and Sondra Lipshutz '13 worked with ES assistant professor Cathy Gibson studying chemi-

cals in the streams of the Catskills. Julie Pineda '14 teamed with Gibson and associate professor Josh Ness to examine the quality of the soil in the Skidmore North Woods. The collaborative research project senior Nicholas Luisontag undertook with associate professor of Environmental Studies Karen Kellogg last summer turned into a cooperatively curated exhibit at the Tang Teaching Museum this past spring entitled "[Unstable Ground](#)."

Studying abroad is becoming the high impact practice defining their junior year for many ES students. Students learn about the environment *in situ* in locations ranging from Viet Nam and Copenhagen to Costa Rica and Tanzania. Meanwhile, for students on campus, "high impact" is often just another name for the Skidmore classroom experience, as the students enrolled in visiting lecturer Jeff Olson's fall 2010 class "Sustainable Mobility" discovered. They studied the campus for its responsiveness to walkers and bicyclists, presenting their solutions in a report to the campus and Saratoga Springs community entitled "Creative Thought in Motion."

The rhythms of Eco-Hip Hop reverberate throughout the Environmental Studies Program. It is how we learn and is a vital part of our educational culture.



Michael Marx, Associate Professor of English, Director of the Environmental Studies Program.

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Inside This Issue:

Page 2: Faculty Profile, Faculty Highlights Page 3: Alumni Profile, Faculty Highlights (continued)

Page 4-5: Events and Trips Page 6: Student Awards & Accomplishments Insert 1: WRI & Capstone

Faculty Profile: Josh Ness



In 2005, Dr. Josh Ness joined the Environmental Studies Program through a joint appointment with the Department of Biology. This spring we celebrated the news of his tenure and promotion to Associate Professor. Ness is an integral member of our program, teaching important courses and engaging students in research across the curriculum.

Ness earned a B.S. in Biology from Duke University, a Ph.D. in Ecology from the University of Georgia in 2001 and was a

fellow in the Postdoctoral Excellence in Teaching and Research Program at the University of Arizona from 2003-2005 before joining the Environmental Studies Program at Skidmore. He currently teaches portions of the foundation sequences in both Biology and Environmental Science (*The Diversity of Life* and *Conservation & Use of Forested Landscapes*), two upper level courses (*Plant-Animal Interactions* and *Biological Invasions*), and a seminar for first-year students called *Life in the North Woods*.

Ness' teaching and research focus on how the consequences of interactions between different species (e.g., flowers and pollinating bees) can change as the larger setting of those interactions change. As a result, Ness and his students explore questions related to landscape change, climatic variability, and the distribution and consequence of exotic species in native communities. These themes are significant because they capture the challenges faced by nature in the modern world. This past spring he was honored as the first scientist to present at the Skidmore Research Colloquium. His seminar for the Colloquium, titled "The North Woods Captures the World," emphasized the ways that our natural campus can serve as a model for other settings

Faculty Highlights

The ES Faculty members were extremely productive in terms of publications, presentations, grant applications, and service. The *ES Program* received a major grant from the Mellon Foundation to fund a new tenure track position in Environmental Social Science. Our nationwide search for this position began this fall. Since 2002, ES personnel have been instrumental in bringing nearly \$1.7 million in institutional grants to support new hires, instrumentation, and research opportunities across campus.

Cathy Gibson continues to research linkages between nitrogen and phosphorus cycles in streams. She and Claire Superak ('11) examined controls on nutrient dynamics in a series of Adirondack streams. They presented this work at the Annual Meeting of the North American Benthological Society (now Society for Freshwater Science). In addition, Gibson is working with collaborators to examine the environmental drivers of a nuisance algae (diatom *Didymosphenia geminata*) in the Northeast. Gibson presented preliminary findings of this work at the annual meeting of the Friends of the Kayaderosseras. Gibson continues to work on improving student access to modern analytical research instrumentation through the [Skidmore Analytical Interdisciplinary Laboratory](#) (SAIL), which was funded by a National Science Foundation grant.

and drew heavily on his summer collaborative research with Doug Morin (ES, 2007). Ness and Morin's work parsed the influences of the modern and historical North Woods landscapes on the distribution of present-day plants and animals and was published in the scientific journal *Biological Conservation*. A follow-up article published by the pair demonstrated that the patterns discovered in Skidmore's North Woods predicted the distribution of these rare organisms in forests across the eastern United States. Ness and his students have co-authored 10 presentations at regional and international conferences since 2005, and they are currently exploring the distribution and consequence of an exotic plant, Japanese knotweed, in the riparian zones of the Upper Hudson, whether rare herbaceous plants can help forests retain nutrients (in the North Woods and at Merck Experimental Farm and Forest in Vermont), and how climatic variability influences interactions between plants and animals in the Sonoran Desert in Arizona. This work has been supported by the Water Resource Initiative, the National Science Foundation, and the New York Biodiversity Research Institute.

Ness' courses emphasize what we can learn from the local environment. His classes incorporate the North Woods forest, Skidmore's student garden, and the Kayaderosseras creek as the sites of weekly outdoor labs. He and his students have incrementally built a wiki site focused on the organisms and biotic interactions within the woods (see https://academics.skidmore.edu/wikis/NorthWoods/index.php/Main_Page).

In addition to serving on the Environmental Studies Program steering committee, Ness has served on the Self-Determined Majors committee and the College's Committee on Educational Policies and Procedures (CEPP). Ness is chairing CEPP during the 2011-2012 academic year.

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Karen Kellogg served on the Outreach & Membership Committee for the Association for Environmental Studies and Sciences (AESS) and chaired the Sponsorship Committee for the 2011 AESS Burlington meeting. She also continued her role as Director of the Water Resources Initiative (WRI), which concluded the final year of the Andrew W. Mellon Foundation grant. This major grant not only advanced WRI but also launched several positions for ES. Kellogg was the faculty advisor for six internships and one independent study. In addition to co-curating "*Unstable Ground*" with senior Nicholas Liu-Sontag (see page 1), Kellogg also authored "*That is Our Bitterness: Enslavement by Oil in the Niger Delta*", an essay for the catalog of the [Environment and Object in Recent African Art](#) exhibition at the Tang Museum. She once again co-taught the ES Capstone course and is in the process of preparing several manuscripts with student co-authors based on work that has come out of either capstone and/or WRI collaborative research.

Kim Marsella was the faculty advisor for five internships, including one with Saratoga P.L.A.N., three for the Sustainable Skidmore Composting Project, and one for Hudson Crossing Park. Marsella also served on the Advanced Placement (AP) Environmental Science Standard

Faculty Highlights (continued)

Setting Panel, represented Skidmore at the Conference & Dialogue on Water Resources and the Regional Economy, and received a Responsible Citizen Task Force Civic Engagement Grant to support a hands-on farming immersion/work project (see page 5).

Josh Ness, featured in our "Faculty Profile" (see page 2), conducted collaborative research on forest health with Gordon MacPherson '12. Ness and MacPherson presented their research at a conference at Merck Forest & Farmland Center in fall 2010. Ness recently received a Faculty Development Grant, titled "Past and future interactions between plants and animals in the Sonoran Desert," to explore the influence of climatic variation on interactions between species. This research was the focus of invited seminars in the past year at Union College, Siena College, Wesleyan University, and Skidmore.

ES faculty and student authors were also well represented at the Association for Environmental Studies and Sciences (AESS) annual conference held in Burlington, VT this past June. Our presentations represented a wide range of work from humanities, social sciences, and natural sciences, along with information about advising and career planning/transitions. Karen Kellogg and Michael Ennis-McMillan (Associate Professor of Anthropology) both presented papers that include Skidmore undergraduates as co-authors. "Crooked Waters: A History of Riparian Conflict and Common Law in the Kayaderosseras Watershed" was presented by Kellogg with co-authors Michael C. Ennis-McMillan, Nadine S. Dodge '10, and Brad K. Nesbitt '09 in a session titled "A Place for History in Environmental Studies." Ennis-McMillan presented "Ethnoecology of Aquatic Invasive Species: Conflicting Perspectives on Watershed Management in Upstate New York", with co-authors Karen Kellogg, Molly Bergen '07, and Leah Wohl Pollack '08 in a session titled "Perspectives on Invasive Species."

Alumni Profile: Lauren Mandel



Since graduating from Skidmore in 2005 with a major in Environmental Studies (Environmental Science Track) and a minor in Studio Art, Lauren Mandel "fell deeply into the world of landscape architecture." Now, as a project manager, designer, and rooftop agriculture specialist for the Philadelphia-based green roof firm Roofmeadow (formerly Roofscapes), she designs and builds green roofs all over the country.

Mandel says her path from environmental science to landscape architecture and green roof design was "deliberate and taxing." After graduating from Skidmore, she worked for a local landscaper in Saratoga Springs, learning the basics of residential and commercial landscape maintenance. Through her work, it soon became clear that "shaping the environment through design" would integrate both her Environmental Studies major and Studio Art minor as well as enable her to implement social change. This path ultimately led her to landscape

Josh Ness, Michael Marx (Associate Professor of English and Director of Environmental Studies Program) and Sue Van Hook (Research Associate in Biology) collaborated on a session titled "The Pedagogy of Place: Seeing the Forest for More than the Trees," where in a series of presentations they each highlighted examples of how we have incorporated the North Woods and the Kayaderosseras watershed into courses and student research projects as "model systems" to better understand larger phenomena as well as to showcase the relevance of the natural environment in educating the whole person.

Kim Marsella presented a talk titled "The Role of Academic Advising in Career Counseling for ES Students," during the session titled, "Career Advising in ESS: Demystifying Green Job Counseling."

Below: Marx, Ness, Ennis-McMillan, Van Hook, and Kellogg at AESS.



Please look for future highlights, including those of our ES Affiliated Faculty members, on the ES Website!

architecture.

After deciding to pursue landscape architecture, Mandel was chosen for a year-long internship with the internationally renowned planning and design firm Wallace Roberts & Todd, LLC. There she worked on designs ranging from streetscapes to master plan development for an Olympics site. She then deferred enrollment to the University of Pennsylvania's Master of Landscape Architecture program in order to work at a planning and design firm in Seattle, where her work mostly revolved around urban design, "interspersed with city planning and traditional landscape architecture." After Seattle, Mandel enrolled in the Department of Landscape Architecture and Regional Planning at Penn, "a graduate program with an interdisciplinary slant, whereby joint courses were offered to Landscape Architecture, City Planning, Architecture, and Historic Preservation students." During her third and final year at school, she wrote a book on urban rooftop agriculture. The book, which Lauren is currently shopping to publishers, "examines the viability of rooftop agriculture through the combined consideration of design, policy, culture, and economics." If moved to print, it will be the first book ever published to exclusively focus on rooftop agriculture. Mandel's Green Roof Technology advisor for the book, Charlie Miller (known as the "father of green roofs in North America"), is also

Alumni Profile (continued)

her boss at Roofmeadow and has been instrumental in informing the pragmatic aspects of rooftop construction while acting as a visionary mentor. You can learn more about her book and follow her progress on her new blog: "Eat Up" at <http://eatupag.wordpress.com/>. When asked how her study in her major and general grounding in the liberal arts prepared her for success, she replied, "Before Skidmore I was interested in pursuing the sciences in a myopic kind of way. At Skidmore, Karen Kellogg's Sustainable Development course introduced me to the importance of considering the social, political, economic, and legal aspects of environmental issues, rather than just the science behind each issue. The breadth of courses that were offered at Skidmore provided a broad academic foundation, which eventually helped me to discover a career that melds my vari-

ous interests and allows me to positively affect the environment." Her advice to Skidmore students and ES majors is to "take as many varied courses as possible. Undergrad is not the time for specialization; it is the time for discovery. Specialization will come later, and it will be properly applied only with a broad understanding of how the specialty inter-relates with everything else in life."

Mandel gives lectures on green roofs and rooftop agriculture and is currently involved with the design of a potential 160,000 square foot rooftop farm in North Philadelphia. She enjoys backpacking, cycling, and what she calls "extreme dog walking."

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Highlights from our 2010-2011 Events and Trips

This year the ES program sponsored an exciting line up of events and programs to enrich and complement our students' educational experiences. Our Annual Keynote Address was "The Future is Riding a Bicycle" by [Jeff Olson, Architect and Planner, Alta Planning and Design](#), followed by our annual Welcome Reception, featuring our local community partners, including Saratoga PLAN, Wilton Wildlife Park & Preserve, Hudson Crossing Park, LA Design Group, Environmental Advocates of New York, Sustainable Skidmore, and the Dorm Authority of New York. The event drew over 250 students, faculty, and community members and was a great way to focus community energy for the upcoming year. Olson also taught a fall 300-level course, "Sustainable Mobility Solutions," which included a student assessment of sustainable transportation at Skidmore. The students presented their findings to the Skidmore community in a series of open presentations and through a centennial bicycle and pedestrian plan for the Skidmore College campus entitled "[Creative Thought In Motion](#)." Research focused on existing conditions of mobility on campus, data collection about perceptions of transportation issues, and what peer institutions are doing about mobility on their campuses. The issues that students addressed in their plan include the perimeter path, the bike-sharing program, and the north-south quad divide on campus. Their plan acknowledges these challenges and provides guidelines and solutions to these issues for future development.



Above: Marsella and Olson at the

Early in the fall we also co-hosted "[Food, Farms, and the Future](#)," a Dunkerley Dialogue panel discussion on local, sustainable agriculture with Edwin Yowell, Regional Director of Slow Food, local farmers, and more. This was held in conjunction with the Tang Exhibit "[Understory](#)" by Paula Hayes and was followed by a student tour of the Skidmore Organic Garden. Our student organic garden also hosted a series of work garden parties throughout the year that allowed students of all levels to learn about and participate in the campus garden. ES also co-sponsored a series of films during the semester focused on sustainable agriculture, including *Truck Farm* and

The Farmer and The Horse.

Noteworthy among the other major highlights of the fall semester was a lecture by Bill McKibben co-sponsored with the Human Dilemmas Scribner Seminars. McKibben had dinner with ES faculty and students before the event and then spoke to the full house of students and faculty about his book *Eaarth: Making a Life on a Tough New Planet* and his 350.org movement. In his talk, McKibben discussed how global climate change is affecting the earth's natural cycles and emphasized how global warming is translated into extreme natural events that impact people across the globe. McKibben shared the inspiring story of how he and a handful of students came up with the idea to create the 350 campaign and website and how quickly that grassroots movement has spread around the globe. At the time, one hundred and seventeen nations had signed the 350 pledge declaring that they will attempt to reduce carbon emissions to below 350 parts per million of CO₂.



Above: Bill McKibben
Photo by Nancie Battaglia

The spring semester also offered a wide variety of events and programs. In collaboration with the Tang Exhibit [Environment and Object: Recent African Art](#), we co-sponsored a screening of [Taking Root: The Vision of Wangari Maathai](#), followed by a discussion with the filmmaker Lisa Merton. Both the exhibit and the film helped us to focus on global environmental issues and themes from global oil production to issues of global justice and women's rights.

Another highlight of the spring was a program we co-sponsored with Special Programs, the inaugural event of the newly created Carr Residency Program. [Carter Roberts](#), President and CEO of the World Wildlife Fund-US, gave a presentation titled "The Business of Conservation" (the full presentation can be viewed at <http://www.youtube.com/watch?v=-QT2-mu6t2M>). The Carr Residency brings to campus civic leaders to speak about their work and address the issue of post-baccalaureate transition, enabling students and alumni to interact with influential individuals who are on the cutting edge of social issues, non-profit and public service innovations, and social responsibility. To that end, Roberts spent the day visiting a few

Highlights from our 2010-2011 Events and Trips (continued)



Above: Career Walk with ES students, Carter Roberts (center), Mark Bettinger, and Henry Tepper.

of our Environmental Studies classes as well as leading a very special event that we called "A Career Walk," which included approximately a dozen ES students and campus leaders ranging from seniors to first-year students. The discussion took place during a walk through the North Woods and included two other national level leaders on environmental issues, Mark Bettinger of the Sierra Club and Henry Tepper of Patagonia Sur LLC (formerly of Audubon and The Nature Conservancy, and, notably the architect of the recent deal that protected more than 160,000 acres in the Adirondacks, including a section just north of campus). We hope to model this type of interactive presentation/career discussion with future speakers.

Later in the semester we co-sponsored a unique, interdisciplinary

and participatory presentation titled "Black/Land: A Different American History" led by Mistinguette Smith and Danyelle O'Hara. The presentation looked at American history in a different way, contextualizing the African American relationship to land and place in the U.S. Using race as a lens, the presenters looked at themes of environment, economic development, civic engagement, and policy concerns.

Switching gears, we had another fascinating presentation by Gavin McIntyre, Chief Scientist & Cofounder of [Ecovative Design](#), titled "Inspired by Nature: Mycological Biomaterials." McIntyre discussed new principles for material design that consider the social and environmental impact rather than just the financial bottom line and explained how fungi can provide a solution to our world's future material needs. This was our first formal presentation from Ecovative Design although we are lucky to maintain a wonderful connection to this local company through the work of Sue Van Hook, Research Associate in Biology and current Chief Mycologist for Ecovative. Van Hook continues to sponsor collaborative research with Skidmore students and provide research opportunities with Ecovative. ES alum, Dawn Harfmann ('10) is also currently employed at Ecovative in their Green Island, NY facility as Director of the Research and Development Lab.

In early May, we offered a day-long workshop at the [Whole Systems Design Research Farm](#) in Moretown, VT, one of North America's most diverse permaculture research sites, allowing a group of 20 students to gain hands-on, applied permaculture skills. This program was co-sponsored by the Responsible Citizenship Task Force and followed after an on-campus workshop on Permaculture Design that was co-sponsored with the Environmental Action Club. This is an area of research and applied skills that our students are very interested in; they are hoping to use these trainings to bring elements of permaculture to the Skidmore Campus.



Permaculture workshop at Whole Systems Design, Moretown, VT.

Above: Ben Falk instructs the group on some of the basics of permaculture and explains the day's activities. Top left: Mushroom inoculation in native logs. Right: Tree planting.

Student Awards and Accomplishments

This year marked our third year of recognizing an outstanding student from each track of our major through the Environmental Studies Faculty Award. The class of 2011 recipients were Laura Fralich (Social and Cultural Perspectives Track) and Claire Superak (Environmental Science Track). Both students were recognized for their academic achievement, community engagement, and leadership. Fralich was noted for exemplifying responsible citizenship and civic engagement through her leadership of the Environmental Action Club and her work with various non-profit groups nationally and internationally, including the Latino Community Advocacy Program, Saratoga Foundation for Women Worldwide, Planting Hope, and Safe Passage. She was the driving force behind the establishment and success of the organic garden on campus, which has served as a catalyst for many other student and faculty projects.



Superak was noted for her ability to approach science with thoughtfulness, creativity, and passion as exemplified through her research studies of knotweed in the Battenkill, nutrient cycling in Adirondack streams, and rural tree

decline in Tasmania. She also served as a peer tutor, an Eco-Rep, and co-captain of the Field Hockey Team and shared her time and advice with a multitude of ES students.

Superak is currently pursuing a Ph.D. in environmental engineering from Rensselaer Polytechnic Institute.



Above: Fralich (left) in student garden. Superak (right) during study abroad in Australia.

Our students received numerous other awards and prizes, some of which are highlighted here. Jesse Moy '11 (Environmental Science Track & Studio Art minor) received the Joseph Garrison Parker Prize for a science major who excels in both science and the arts. Kate Ito '11 (Social & Cultural Perspectives Track) received the Barnabas McHenry Hudson River Valley Award

to research how a National Park designation could affect the Hudson Valley's economic, environmental, social, and natural institutions.

Korena Burgio '11 (Environmental Science Track) was awarded a Fulbright Teaching Assistantship to teach English in South Korea, and Sarah Green '11 (ES minor) received a Fulbright Research Grant to study Eco-Literature in Argentina. Nadine Dodge '10 (Social & Cultural Perspectives Track) was also awarded a Fulbright US Graduate Student Award to undertake study in New Zealand. She is one of ten US recipients of the award to study in New Zealand in 2012. Her work will be through her Master's Program in Development Studies, an interdisciplinary program, at the Victoria University of Wellington, and her research will focus on a comparison of economic development in New Zealand and U.S. Dairy Industries. Elizabeth (Betsy) Stoner '08

Below: Stoner (right) during study abroad.



(Environmental Science Track) received a highly competitive and prestigious EPA STAR Fellowship to continue her Ph.D. research in Marine Biology at Florida International University. Stoner is working in the Bahamas evaluating how anthropogenic nutrient loading may be driving "blooms" of jellyfish, which can affect the community structure and function of seagrass and mangrove ecosystems. This work is in part a continuation of research that she began on her study abroad program her junior year. She recently published this work in *Marine Pollution Bulletin* (Stoner et al., 2011).

ES students also continued to benefit from multiple different internship opportunities and awards during the school year and summer. The Schow Family Internship Award for Environmental Studies funded two awards of \$2500 each for unpaid summer internships. The 2011 recipients were Drew Levinson '12 (Environmental Science Track) and Becks Kolins '12 (Social & Cultural Perspectives Track). Levinson's internship was in Washington D.C.

with the EPA Honors Law Clerk and Intern Clinical Legal Education Program. Kolins interned with the Sludge Safety Project, an education and activist environmental organization working against mountaintop removal in West Virginia. Three ES majors also received summer funding through the Skidmore Responsible Citizenship Internship Award (RCIA) program. Kate Ito '11 (Social & Cultural Perspectives Track) interned with Operation Groundswell in Peru, Jackie Slocombe '12 (Social & Cultural Perspectives Track) interned with Community Involved Sustainable Agriculture (CISA) in western Massachusetts, and Max Koenig '14 (Environmental Science Track) interned with Growing for Food in Bedford, MA. Two other students doing notable summer internships were Rachel Chalot '12 (Social & Cultural Perspectives Track) who interned with the Alliance for Sustainable Colorado in Denver and Eliza Sherpa '14 (Environmental Science Track) who interned with the program New England Climate Summer that brought together 31 students from around the nation to bicycle across New England, living sustainably and promoting a rapid and responsible transition away from fossil fuels. [Sherpa](#), a [Porter Scholar](#), was highlighted on the Skidmore website and in a [Saratogian article](#).

Our students also sought innovative ways to accomplish their goals while abroad including Peter McInerney '12 (Social & Cultural Perspectives Track), who was awarded a grant from the Responsible Citizenship Task Force (RCTF) to construct a domestic biogas system as part of his independent study project during his spring semester abroad in Tanzania with the School for International Training (SIT) Coastal Ecology & Natural Resource Management Program.

Below: McInerney (left) with biogas system.



Follow our Student Achievements any time on the ES Website!

The Water Resources Initiative (WRI) at Skidmore College brings together students, faculty and community partners to investigate our local watershed. 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. The ES Capstone focuses on issues within the Saratoga Lake/Kayaderoseras Watershed.



The ES Capstone Experience: A Perspective by Capstone Instructors

As alumni of the Environmental Studies (ES) Program will attest, the ES capstone is an academic experience like no other. Over the course of a year and with the help of ES faculty, and community members, student teams explore an environmental issue within the Saratoga Lake watershed, and students present their community-relevant research to a packed house just before graduating and entering the “real” world. Engaging students in the real world *during* their senior year, however, is actually what capstone is all about, and we believe this type of engagement is transformational for most students. Because capstone teams conduct research germane to and in collaboration with community members, students are highly motivated to perform well; therefore, their research and oral and written communication skills greatly improve over the semester. Cap-



Capstone faculty listen to rounds of “dry runs.”

stone also focuses on transitioning to life after Skidmore; the research projects help students to explore and realize their shorter term professional goals. Through interviews, resume speed-dating, guest speakers, and alumni panels, capstone also helps students prepare for the next stage in life. While most students understand the value of the capstone experience during the journey, the true worth, as various alumni testimonials reveal, often hits them at some point post-graduation. As we discuss during the very first day of class each year, however, capstone is no easy road. There are emotional highs and lows for the students and faculty alike. The challenge of identifying a research focus, the hurdles encountered during data collection, and the panic that sets in as the presentation date draws near are all part of the character building that defines the ES capstone. There are certainly moments when we have ill thoughts about one another—Why did my partner just erase our most critical interview? Why did my partner just eat one of our precious field samples? Why are these instructors making us do three, yes, three dry runs? —the overall environment in capstone is collaborative, rigorous, supportive, and fun. Additionally, the co-curricular aspects of capstone can also be rich and help to foster a sense of community – think kick ball tournaments in full costume, canoeing on Saratoga Lake complete with missing car keys, and piles of junk food and great conversation in the ES “lounge.”

Through the dedication of many faculty members and students, our capstone experience has evolved from fairly humble beginnings. Early in the life of the ES Program, students conducted an independent study with one of the many ES faculty members from across the College. While some wonderful projects emerged from this model, there was little sense of community among the students. Since they never came together in a course, there was little development of interdisciplinary understanding, and most students were not immersed in the real world, local issues that are now the heart of capstone. In 2003-2004 we introduced the new model of capstone but packed the entire process into one semester. In 2008-2009, we expanded to the year-long sequence, making more room for the transition exercises that are now viewed as an essential part of capstone. Our ES capstone evolved into an experience that is not only unique at Skidmore but also a model other colleges and universities hope to emulate.

While it is heart-wrenching each year to say good-bye to the capstone group, another wonderful aspect of capstone is that the projects live on in one form or another.

Some feed summer collaborative research, independent studies, and additional capstone projects, which ultimately result in publications in prestigious journals and presentations at academic conferences. Two examples include an exploration of an early environmental law case in the Saratoga Lake watershed and an investigation of the social and cultural perceptions of invasive species. There are also projects that literally change the landscape of Skidmore College. The construction of a rain garden near the Frances Young Tang Teaching Museum and Art Gallery serves as a model of better storm-water management; a feasibility study of composting helped launch our composting pilot project. There are also those projects that leave a lasting impact on the surrounding community, including the development of BioMAK, which is a citizen-based biomonitoring initiative being launched through the Saratoga County Inter-municipal Stormwater Management office.



Professor Turner lends a hand!

All of the projects help us build and strengthen connections with community members and organizations, and these relationships continue to help us improve the capstone experience year after year. The rigor and breadth of the 2010-2011 projects continued to strengthen the ES capstone experience. Within the Saratoga Lake watershed and with numerous community partners, teams examined various aspects of development and transportation, water quality, local food networks, green business strategies, green architecture, and renewable energy potential (See list on right). The feedback we received from the audience of the ES capstone event, which included 100+ people, including those who watched the live-streaming of the event, was incredibly positive. As instructors, we were even more impressed because we know the work that goes on behind the scenes. These students worked extremely hard on their own research projects and provided each other with critical feedback and support throughout the year. The beginning of a new academic year is always bittersweet. We look forward to triumphs and tribulations that will come with a new crop of capstone students, but we lament the absence of those students from the previous year who have now, indeed, entered the real world.



2011 ES Majors at Academic Festival with instructors, Bob Turner (back far left) and Karen Kellogg (front lower right).

Summer Collaborative Research 2011

Linking Nitrogen and Phosphorus Uptake

Andrea Conine* '13 and Sondra Lipshutz '13, Cathy Gibson, Assistant Professor, Environmental Studies. *Schupf Scholar Program

Linking the Distribution of a Noxious Exotic Plant, *Alliaria Petiolata* (Garlic Mustard), and Candidate Dispersal Vectors

Maranda Duval '11, Charles Glassberg '12, Adam Schmelkin '12 and Josh Ness, Associate Professor, Biology and Environmental Studies.

Skidmore, Dirt Poor or Rich with Nutrients? Soil Quality and Leaf Decomposition in Skidmore's North Woods

Julie Pineda* '14, Cathy Gibson, Assistant Professor, Environmental Studies Josh Ness, Associate Professor, Biology and Environmental Studies. *S3M Scholar Program

Senior Capstone Projects 2010-2011

Balancing Economic Growth with Environmental and Social Concerns: Evaluating SEQRA Through a Case Study of Global Foundries

Korena Burgio '11 and Evan Caster '11

Citizen BioMAK: A Volunteer Guide to Biological Monitoring and Assessment of the Kayaderosseras Creek

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