

# ENVIRONMENTAL CONNECTIONS

## INTEGRATED FIVE CENTERS INITIATIVE

### SPRING SEMESTER HERALDS

in the Integrated Five Centers Initiative: Striving for Global Justice, a series of events organized by the College's five academic centers: the Goodwin-Niering Center for the Environment, Toor-Cummings Center, Holleran Center, Center for Comparative Study of Race and Ethnicity, and the Ammerman Center for Arts and Technology. Addressing gender, environmental, socio-economic, digital and ethno-racial issues related within the context of global justice, Striving for Global Justice begins the first week of February with showing of the PBS film, "Half the Sky," a film that addresses the oppression of women and girls worldwide. The film was inspired by authors Nicholas Kristof and Sheryl WuDunn who wrote, "Half the Sky: Turning Oppression into Opportunity for Women Worldwide." Kristof is delivered a keynote lecture on February 11 in Evans Hall. A faculty panel discussion and critique will follow on February 21 in the Chu Room as well as an alumni panel discussion the following week. Throughout the semester, students in the centers' programs will address issues of global justice through lectures, discussions and project presentations.

In April, the dialogue broadens with the Goodwin-Niering Center's pre-conference Lambert Lecture on April 18, given by Melina Laboucan-Massimo who will speak on indigenous Cree resistance to the Canadian tar sands projects and pipeline. The conference, The Quest for Environmental Equity in an Increasingly Inequitable World, takes place on April 19 and 20. Activists, conservationists, human rights lawyers, political scientists, and other experts in the field will address this phenomenon. Additionally, Connecticut College faculty who have been immersed in a two-year study of these issues, including excursions to India, Peru and South Africa, will participate in panel discussions.

## CERTIFICATE SEMINAR EXPLORES TOXINS IN THE ENVIRONMENT

### DURING THE FALL SEMESTER, THE STUDENTS

in the certificate seminar undertook an investigation into Toxins in the Environment which proved both eye-opening and at times, frightening. We started our investigation by delving into the groundbreaking work of Rachel Carson. While Rachel Carson's exposé of the presence and impacts of pesticides in our environment is attributed with the birth of the modern environmental movement in the 1960s and universally cited in environmental histories of the era, we quickly discovered that it is no longer widely read by contemporary students. Thus our first task was to take up her book "Silent Spring" and read it critically, trying to determine how it can be simultaneously so famous, and yet no longer on the reading list of those who are environmentally concerned. Students were amazed to see how beautifully and persuasively it was written and glad to add this important book to their repertoire. But to its credit, they also realized that while the book was a powerful wake-up call to a society unaware of the dark side of the green revolution in pesticides and fertilizers, it succeeded in its task and its message is no longer shocking or surprising to modern audiences. What came as a shock however, was our continued investigation into the chemical soup that we now breathe, drink, and consume in various ways in the environment in which we live. Rachel Carson may have opened the Pandora's box in telling us of the dangers of chemicals, but somehow her larger agenda of getting us to question the chemical industry beyond simply the agricultural realm was not successful. In her writings, as seen in documentary footage from the Leer Collection at Shain Library, it's clear that she felt that she was only beginning a crusade and regretted deeply that she could not follow through on it. What surprised the class most was that no one followed up on it in a way that might reach mass audiences for the next several decades. As synthetic chemicals became a part of our daily lives – popping up in almost any product or medium imaginable – society remained largely unaware of the serious dangers to which we are constantly exposing ourselves.

This crusade to wake people up to the number of toxins and untested chemicals that permeate our lives and go under the radar of regulation, has finally been undertaken by courageous writers following in Rachel Carson's footsteps and a new generation of activists and writers determined to shed light on the severe threats to environmental health that we ignore at our peril. One such writer is Sandra Steingraber, author of "Living Downstream." This powerful personal story, paralleling Carson's own, is an exposé of the reality of unnoticed toxins permeating our environment and the author's personal battle with cancer, a cancer that she suspects is linked to the environmental hazards in her life – just as the surge in cancers in the second half of the twentieth century correlates with the dawn of the chemical era in the 1950s and beyond. After reading both "Silent Spring" and "Living Downstream," the class was well prepared for the Rachel Carson Symposium which celebrated the 50th anniversary of "Silent Spring" and brought Sandra Steingraber and others to campus to remind us that the battle has not been won. In fact, it has barely been begun. Steingraber's talk was as powerful as her writing and the students valued the opportunity to follow up their reading with questions, and to hear her own unique perspective.

In the second half of the semester we moved beyond history to seriously consider just how many chemicals of unknown impact we are exposed to on a daily basis, and what the impacts might be for contemporary society. From reading a number of articles,



Jane Dawson, Associate Director



# DIRECTOR'S LETTER

Douglas Thompson, *Harrison Director*  
Glenn Dreyer, *Executive Director*  
Jane Dawson, *Associate Director*  
Amy Cabaniss, *Assistant Director*  
Keleigh Baretincic, *Center Assistant*

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Sanjeeva Balasuriya, *Mathematics*  
Robert Baldwin, *Art History*  
Anne Bernhard, *Biology*  
MaryAnne Borrelli, *Government*  
Beverly Chomiak, *Physics*  
Robert Darst, *Visiting Professor*  
Ann Devlin, *Psychology*  
James Downs, *History*  
William Frasure, *Government*  
Pam Hine, *Botany*  
Chad Jones, *Botany and Environmental Studies*  
Manuel Lizarralde, *Anthropology and Botany*  
Stephen Loomis, *Biology*  
Karina Mrakovich, *United States Coast Guard Academy, Marine Science*  
Peter Siver, *Botany*  
Rachel Spicer, *Botany*  
Derek Turner, *Philosophy*  
Gerald Visgilio, *Economics*  
Marc Zimmer, *Chemistry*

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Established in 1993, the Goodwin-Niering Center for the Environment is an interdisciplinary program that draws on the expertise and interests of faculty and students in the liberal arts to address contemporary ecological challenges. The center strives to integrate all areas of learning to deal with the issues of sustainability and the natural environment. Building on a scientific understanding of the natural world, the center invites the social sciences, the humanities and the arts to help understand and solve difficult environmental issues.



*Douglas Thompson, Director*

## THE GOODWIN-NIERING CENTER

for the Environment reached an important milestone with the dawn of 2013, and we are happy to announce our 20th anniversary. The original idea for the center evolved and expanded a great deal in the last two decades. Initially, a small group of faculty gathered with a common focus on long-term ecological research. Early work of the center involved faculty sharing of research ideas and book discussions. The center then ran its first conference in 1997. The certificate program was added and graduated its first class in 2001. Each step increased the center's role in environmental education on campus and beyond.

Today, the center incorporates a large group of faculty, staff, students, alumni and affiliated members with a very broad range of interests related to the environment. Our biennial conference, the Elizabeth Babbott Conant Symposium, is now an important tradition over a decade old. Our sum of certificate alumni recently surpassed the century mark. The number of affiliated faculty and departments continues to grow and reaches well beyond the science disciplines that pioneered the center. A more recent modification in name, from the Goodwin-Niering Center for Conservation Biology and Environmental Studies, better reflects our broad interdisciplinary focus, encompassing all that the center does now.

One critical aspect of the center name that remained unchanged is the reference to two key innovators in environmental education at Connecticut College and the country as a whole. Richard Goodwin and William Niering helped to establish the Environmental Studies Program on campus and its forerunner, the Human Ecology major. Both individuals inspired scores of Connecticut College students, many of whom still maintain strong ties to the college. Unfortunately, as time passed, students learned little about how incredibly important Goodwin and Niering were to both the college and the center.

Beginning this semester, we plan to introduce the newly-accepted group of eleven certificate students to the center's namesakes, Goodwin and Niering, to build a better understanding of who they were and how they impacted the world around them. The sophomore class will participate in a new service-learning course in addition to the traditional certificate seminar class. Sophomores will spend this semester learning and participating in an activity that was near and dear to the hearts of both Goodwin and Niering: working on projects in support of local land conservation.

The center established a cooperative connection with Avalonia Land Conservancy which is a group that protects land in local towns. The first venture will focus on the Knox Preserve in Stonington. This preserve is a moderate-sized coastal property with a small saltmarsh. The site has problems with phragmites, bittersweet and numerous other exotic invasive species. It also has lots of potential. Students will work in small groups on numerous projects that will help the organization as a whole and Knox Preserve in particular. As part of the preparation for their various semester-long projects, students will learn the history of land conservation that Goodwin and Niering helped spur on, and off, campus. The whole experience should help certificate students develop a better appreciation for the importance of land conservation and encourage a tightly-knit student cohort.

In following years, we plan to continue the relationship with Avalonia Land Conservancy working at the Knox Preserve or another of their numerous properties in the region. Some student projects will be ongoing, with future certificate students carrying on the work of their predecessors. Eventually, seniors and juniors will be able to provide guidance to new center students to help encourage successful completion of undertakings. In addition to learning useful project management skills, graduating students will have a great toolset that will be useful if they elect to become involved in land conservation near their homes.

Twenty years after the center began, we celebrate our past successes and we adopt a new role in encouraging the types of land conservation efforts Richard Goodwin and William Niering would have loved. We hope that, by following in their footsteps, new groups of center certificate students will begin to fully appreciate the incredible importance of Goodwin and Niering to the college and beyond. The ultimate success of the new course will be evident in the education outcomes of the students and the positive impacts on the local environment.



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## FIVE DECADES AFTER SILENT SPRING: COMMEMORATING A WATERSHED PUBLICATION

Mark Roberto '13

ON OCTOBER 18, 2012 THE FRIENDS OF THE CONNECTICUT College Library, the Lear Center for Special Collections and Archives and the Goodwin-Niering Center hosted a symposium commemorating the fiftieth anniversary of Rachel Carson's landmark publication, "Silent Spring." This exciting day brought together experts from many different fields to reflect on the book's immediate impact as well as how Carson's fight against pesticides during the 1960s compares to today's environmental controversies. The afternoon panel discussion was moderated by environmental historian and Carson biographer Dr. Linda Lear '62. The featured speakers were Naomi Oreskes, professor of history at the University of California at San Diego, Peter Siver, professor of botany and director of the Environmental Studies Program at Connecticut College, Helen Rozwadowski, professor of the history of science at the University of Connecticut, and Wendy Blake-Coleman '75, U.S. Environmental Protection Agency Office of Environmental Information. The keynote speaker for the night was ecologist and author of the book "Living Downstream," Dr. Sandra Steingraber.

A day devoted to toxic chemicals and their impacts on the environment may have seemed a less dire choice of topics to some students in the audience, at a time when climate change is at the forefront of most environmental agendas. However, Drs. Oreskes and Steingraber made strong and real connections to the fight against climate change and swiftly engaged the student body in their lectures. Oreskes explained the connections between petroleum-based chemical manufacturers and oil companies, and how the research that attempted to disprove the dangers of these petroleum based chemicals was funded by the same big oil companies that environmentalists are pitted against in the climate change debate.

Sandra Steingraber captivated the audience during her amazing talk, "The Fracking of Rachel Carson," which attacked the industry that extracts natural gas from deep geological deposits through a process called hydraulic fracturing (fracking) and has exemptions from federal environmental regulation. Dr. Steingraber illustrated the harm caused by the fracking process from start to finish, including the large amounts of devastating land use and the likely spread of toxic chemicals into the water table. Steingraber explained that the fossil fuel "party" in the U.S. has to end and called, just as Carson did in the 60's, for less complicated and more elegant processes to meet our needs. It was Carson who first advocated for biological solutions and to take our feet off what she called, "the treadmill of chemical control," and Steingraber urged us once again to seek out lower impact solutions to meet our energy demands.



Panelists (l - r): Helen Rozwadowski, Linda Lear '62, Peter Siver, Wendy Blake-Coleman '75

## SEMINAR: TOXINS IN THE ENVIRONMENT

*continued from page 1*

hearing guest lectures by Professors Joe Schroeder and Jennifer Fredricks on the impact of chemicals on neurological and child development, and finally delving into key chemical categories exposed in Smith and Lourie's recent book, "Slow Death by Rubber Duck," all of us were left a bit stunned by the extent to which our regulatory system has dropped the ball on chemicals, and by the estimates (widely held in the literature) of children's exposure throughout childhood to at least 80,000 chemicals of unknown safety and toxicity. We broke into groups looking at four of the most pervasive groups of chemicals used in consumer products, with students researching sources, impacts, and regulations for these groups, presenting their findings to the seminar class, and producing fact sheets for the four groups (that are available upon request). By the end of the semester, it was widely recognized that no one can protect oneself from all of these unknown environmental hazards. There are, however, some smart choices that we can all make in our consumption patterns that would dramatically reduce exposure to some of the most problematic chemicals. Thus the lessons were initially dispiriting but ultimately revealed an element of hope and control. General agreement by the group converged on the fact that the vacuum of regulatory policy in this realm needs to be filled, and that only through society-wide action can we genuinely begin to protect children, ourselves and the environment, from these toxins.

As we look ahead to the spring semester, the topic of toxins leads quite smoothly into discussions of environmental justice that will occupy us over the coming months. Unequal exposure to environmental hazards (including toxins) is a defining feature of injustice. We will examine inequities in the distribution of environmental benefits, burdens, and decision-making power, both within countries and across the global north and south, in an investigation of global environmental justice and injustice. This exploration will build up to the Center's biannual environmental conference in April, The Quest for Global Environmental Equity in an Increasingly Inequitable World. Once again, we are looking forward to an eye-opening and thought-provoking semester of discussion.

# NEWS FROM GOODWIN-NIERING CENTER ALUMNI

2006

**LAURINDA WONG**

**Major:** Biological Sciences

For the past 4 years I have been on Catalina Island off the coast on Long Beach, CA. I started out as a marine science instructor for the Catalina Island Marine Institute where I taught kids about the ocean and Catalina through different labs, snorkeling, kayaking and hiking. Since last fall I've been the assistant program director serving as the main liaison between our facility and the schools that come for field trips. I have the pleasure of living steps away from the beach so that I get into the ocean every day!

2008

**CARA DONOVAN**

**Majors:** Environmental Studies and Hispanic Studies

I'm in New Haven serving a 2nd year as an AmeriCorps VISTA at CitySeed as the Volunteer & Outreach Coordinator. The goal of my position is to help low income communities of New Haven receive better access to healthy food information, higher intakes of fresh fruits and vegetables and easier access to those foods. I focus on SNAP (Food Stamp) outreach and helped start the city's first Mobile Farmers' Market with Common Ground High School and Urban Farm in 2012. In 2010, I went back to Peru to the remote native Matsigenka community of Tayakome in the Manu Rainforest to work as a health and hygiene education intern for Rainforest Flow, an organization installing a water filtration system, sinks and toilets.

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## SAVE THE DATE!

MAY 2, 2013

Goodwin-Niering Center  
for the Environment  
Senior Integrative Project  
Presentations  
Olin 014  
4:30pm - 6:00pm  
Bill Hall 106  
7pm - 8:30pm

2009

**SAMANTHA WRIGHT**

**Major:** Environmental Studies

**Minor:** Hispanic Studies

In 2012, I finished my Masters degree at Boston University in Earth Science concentrating on Coastal Geomorphology. My thesis is titled: "Understanding the Mechanisms behind Surface Elevation Loss in Ditched Salt Marshes." The fieldwork was performed in Parker River National Wildlife Refuge (Newburyport, MA). I worked as a project scientist with FB Environmental in Portsmouth, NH and I currently work as an independent contractor for Truslow Resource Consulting LLC, also in Portsmouth, which does a lot of work on wetland and river restoration. I am an adjunct faculty member this spring semester, teaching Ecology at Great Bay Community College.

2010

**ANDREW IRWIN**

**Major:** Environmental Studies

For the last year I have been working as a Litigation Support Associate at ENVIRON International helping clients understand the science and policy behind litigation challenges and regulatory changes. I volunteer my time with the Center for Neighborhood Technology in Chicago, IL working to advance their solutions to urban sustainability. In 2011, I also participated in an official delegation to Germany on logistics and transportation planning sponsored by the German-American Chamber of Commerce.

2011

**NITA CONTRERAS**

**Major:** International Relations

**Minors:** Dance & religious studies

I'm currently working at the USDA in the Rural Utilities Service on infrastructure development in rural America as a political appointee for the Obama Administration. My focus is implementing broadband, electricity and water/waste water system policy according to administration priorities. I will be applying to grad school in the fall for a masters in Environmental/International Development programs.

2011

**FLORA DRURY**

**Majors:** Biology and Environmental Studies

Since graduation I have been working as a Naturalist for the nonprofit organization Pacific Whale Foundation ([www.pacificwhale.org](http://www.pacificwhale.org)) based in Maui, Hawaii. I am an interpretive guide on eco-tours sponsored by this organization- interpreting not only the marine life that we see both above and below the water, but also discussing Hawaiian geology, culture, language, and weather patterns, among many other things. The main goal of this nonprofit organization is protecting the world's oceans through science and advocacy, and a major part of my job is helping people make a personal connection with the marine world so that they fall in love with it like I have and hopefully then, will be inspired to make decisions to help protect the ocean.

2011

**CHRIS KRUPENYE**

**Major:** Biological Sciences

**Minor:** French

As a senior at the GNCE, I was accepted into a PhD program in Evolutionary Anthropology at Duke University. This position has led me to a new academic life in North Carolina, as well as on research trips to the Congo to study chimpanzee and bonobo economic decision making and to Japan to explore the utility of touchscreen technologies as a window into the minds of apes and other nonhumans. Broadly, my research seeks to understand the evolution of cooperation and is guided by dual emphases on the cognitive underpinnings of cooperation in nonhuman primates and the selective advantage that is provided to good cooperators in the wild. I will spend the next few years examining these questions through experimental work with apes at sanctuaries and zoos in Africa, the U.S. and Japan, and analysis of long-term data from the wild chimpanzees of Gombe, Tanzania.

# WELCOME TO THE CLASS OF 2015

## THE GOODWIN-NIERING

Center is very pleased to welcome 11 new sophomores into our certificate program. Students and their areas of interests are presented below:

### ANNA CURTIS-HEALD

Major: Environmental Studies, Minor: Art  
Environmental Interest: Environmental education and communication related to art

### JEANNETTE HOETS

Major: French and Government  
Environmental Interest: The relationship between local action and international change with emphasis on C40 cities

### ALEXANDRA IEZZI

Major: Geophysics (self-designed)  
Environmental Interest: Investigation of the environmental impacts of volcanoes

### MAEVE KIDNEY

Major: Sociology, Minor: Art  
Environmental Interest: Local vs. western world perspectives on human-wildlife interactions, explored through photography and journalism

### MARA LOOKABAUGH

Major: Architectural Studies  
Environmental Interest: How the U.S. can reach a balance in environmental priorities and economic concerns related to sustainable architecture

### LISA PAULSEN

Major: Environmental Chemistry  
Environmental interest: The synergistic effects of consumer personal care products on water systems

### CONOR QUILTY

Major: Botany and English  
Environmental Interest: Viticulture and the vitality and sustainability of the land through multiple reuses and new land use practices

### KRISTINA SATTERLEE

Major: Environmental Studies and English  
Environmental Interest: How sustainable agriculture can be successfully implemented in developing countries

### AZUL TELLEZ

Major: Environmental Studies  
Environmental Interest: Analyses of food deserts in New York with examination of culturally relative solutions such as urban gardens

### MICAELA TEPLER

Major: Environmental Studies and Music  
Environmental Interest: Environmental injustice and changing musical expressions as a result of disaster in Louisiana

### MARGOT WILSTERMAN

Major: Biology  
Environmental Interest: By-catch reduction through research on marine organisms, fishery equipment modification and fisheries policy

## CAMPUS SUSTAINABILITY PROGRESS

*Glenn Dreyer, Executive Director*

### THANKS TO THE GENEROSITY OF THE SUN

Hill Foundation the college's bicycle club, SpokesPeople, has ten new bicycles for their bike share program. Based at the Shain Library, students can check out a bike to borrow for free using their library cards. Adorned with a "CC Cruisers" decal, the bikes were purchased from the Niantic Bay Bicycles shop in nearby East Lyme. Club President Tristan Cole applied for the grant with a goal of reducing on-campus driving and the environmental issues associated with automobile traffic. SpokesPeople also helps students with longer term bike loans and bicycle repairs. This year the Sun Hill Foundation gift to the Center also supplemented Sustainability Manager Josh Stoffel's office budget and will likely be used to support a sustainability summer assistant.

As part of a continuing effort to explore renewable energy generation options for the campus, a Sonic Detection and

Ranging (SODAR) wind measuring unit was deployed in the northern part of the Arboretum near the former Samuel Bolles Farm. It is rented from the Connecticut Clean Energy Finance and Investment Authority, an entity charged with increasing the amount of renewable energy in our state. Based on Michael Marshall's '11, Honors Thesis on the feasibility of locating a large wind turbine on college property, the location north of Gallows Lane was selected. The SODAR unit sends continuous data on wind speed at various elevations above ground. This process will inform future decisions about the feasibility of erecting a large turbine to generate electrical power for the campus.

Work continued this semester on the effort to finalize a Sustainability Strategic Plan. Guided by Dean Roger Brooks, chair of the Sustainability Steering Committee and Josh Stoffel, Sustainability Manager, a series of short-term and long-term goals were produced in their final form.



*Tristan Cole '13 with SpokesPeople bikes in front of Shain*



*Sonic Detection And Ranging (SODAR) unit being installed*

# SUMMER 2012 STUDENT INTERNSHIPS

**Rebecca Conner**, a Biology Major, interned at Barrow Arctic Science Consortium (BASC), Barrow, Alaska. BASC is a community based organization dedicated to bringing scientific and local communities closer together on the North Slope in Alaska and Chukotka, Russia by providing logistical support for research and educational activities in these geographical areas. It is funded by the National Science Foundation. As an intern for BASC, Rebecca had the opportunity to work on community outreach projects and provide logistics for researchers and scientists who were also in Barrow for the summer. She worked with Dr. Anne Jensen investigating faunal material from an archaeological dig in Point Franklin, a former Iñupiat settlement on the North Slope, and interviewed whaling crew members in Barrow, Alaska for her Senior Integrative Project.

Environmental Studies major **Rhea Corson-Higgs** spent the summer at Earth Island Institute's New Leaders Initiative (NLI) program in Berkeley, CA. The organization promotes environmental conservation, preservation and restoration. The Brower Youth Awards (BYA) is the premier awards program honoring young environmental leaders ages 13-22. During her internship, Rhea spent three days a week in the Earth Island office and two at Summer of Solutions (SoS). SoS is a nonprofit, social and environmental justice and advocacy project founded in 2008 by a past BYA winner with the goal of building youth leadership in the green economy. "My projects at Earth Island exposed me to the inspirational work of young environmental activists around the country and included researching the current work of the past Brower Youth Award Winners, updating their bios and organizing the first Brower Youth Awards Idea Festival." Rhea also served as a key staff member and coordinator for the free summer camp in Fruitvale.

Environmental Studies major **Rebecca Horan** spent her summer at the Forest Bioproducts Research Institute at the University of Maine in Orono, ME. She participated in the National Science Foundation Research Experience for Undergraduates: "Building the Next Generation of Sustainable Forest Bioproducts Researchers," a program that develops undergraduates' skills in conducting independent research, scientific journal writing and professional presenting. "I spent 10 weeks developing a social Life Cycle Assessment methodology and studying the Twin Rivers Paper Company's operations." All student projects concerned research on the development of advanced technologies and uses of wood, in addition to the sustainability of the forestry industry in Maine. Students

spent time in the forests, laboratories, and paper mills.

**Katherine Lynch**, a Government and Environmental Studies double major interned at the Denison Pequotsepos Nature Center (DPNC) in Mystic, CT. Katie's internship responsibilities included leading property site-tours and participating with other committee members in "exploration days" to unearth some new aspects of the property several times a month. "I am thankful that I was able to become very confident in my understanding and application of a smaller body of knowledge and use it to my best ability; namely history of the farm, study of invasive and native plants, habitat sensitivity and land development methods for the property in helping move the campaign forward. As a summer intern, I also came to appreciate the synthesis of environmental, political and social concerns that can compound local issues."

**Clare Murphy-Hagan**, a Physics major participated in an internship at Colorado State University in Fort Collins, CO. Clare worked with a graduate student from Colorado State University in conjunction with the Forest Service, to test a monitoring protocol that is being developed to assess the effectiveness of the Aquatic Organism Passage Structures nationwide. She specifically worked as a field assistant conducting detailed stream surveys in the Green Mountain National Forest in Vermont and the Siuslaw National Forest in Oregon. "I acquired a great amount of data collection skills, as well as gained confidence in my ability to analyze fluvial and geologic features."

The Shaxi Low Carbon Community Center, Yunnan, PRC is a non-governmental organization (NGO) where International Relations major **Raymond Palmer** spent the summer. The Center aims to spread sustainable development in a secluded valley in Yunnan, China, funded by the Swiss Development Cooperation (SDC). Staff work with locals and the government to protect historical sites, the valley's environment and its distinct ethnic culture in hopes of creating a sustainable economy based on sustainable tourism. "I had the opportunity to live with local families and help with compiling information and conducting assessments on various relevant initiatives such as planning tour programs, going on site-assessment trips, and researching economic structures for equitable management."

Anthropology major **Wynndee Reese** did her summer internship at World Camp Inc. in Malawi, where she completed an independent project with The Mchezi Community

Based Organization (CBO). Working with a group of volunteers for their Home Based Care Program, she acted as a research liaison, volunteering with the Chifundo Private Clinic. "I was able to facilitate discussions about environmental degradation and address the impact of stigma and misinformation on the Malawi government's efforts in trying to eradicate HIV. My internship was an invaluable learning experience; I gained a better understanding of what it means to be a part of a community."

History major **Mark Roberto** interned with the Conservation Law Foundation (CLF), a non-profit environmental law firm in Boston, MA. Mark engaged in archival work and investigated historical documents to portray the history of the organization. "I gained valuable experience through my work in the archives and with press material I was also able to talk with CLF employees to tap into the institutional memory; gaining an appreciation of the human aspect of reconstructing a history."

**Mitchell Serota**, a Biological Sciences major spent his summer with The Florida Amphibian and Reptile Research Team known as "The Croc Docs." This group of researchers is associated with the University of Florida in Fort Lauderdale, FL. As an intern, Mitchell conducted research for the "Everglades Invasive Reptile and Amphibian Monitoring Program" and the "Monitoring American Alligators and American Crocodiles as Indicators of Everglades Restoration" project. "I gained invaluable field experience and made fantastic connections that will surely be useful to me in the future." The primary goal of the initiative is to work cooperatively with other agencies to develop long-term, science-based and GIS/GPS-integrated research, monitoring, modeling and education programs to support ecological restoration and management in South Florida.

Provincetown Center for Coastal Studies (PCCS) Provincetown, MA is a nonprofit organization that is working to preserve coastal and marine ecosystems. Government and Environmental Studies double major **Seana Siekman** worked as a marine policy intern with PCCS. Seana's responsibilities included a variety of projects ranging from field work to educational outreach and article writing, "exposing me to the broad array of factors that contribute to marine policy." The three main facets to the work conducted by the organization including research in the field, promoting stewardship of the environment and providing influential input for policy decisions, and providing educational materials and activities to encourage responsible use and conservation of marine resources.

# LONG-TERM ECOLOGICAL RESEARCH IN THE ARBORETUM

Glenn Dreyer, Executive Director

## LONG-TERM RESEARCH IN THE ARBORETUM

began in 1951 when the college established the Bolleswood Natural Area in the 75 acres west of the pond and plant collections. Named for the family who owned the land since colonial times, Arboretum Director Richard Goodwin initiated a vegetation survey in the Bolleswood in 1952, the same year that William Niering joined the faculty as a plant ecologist. Four 20 foot wide, permanently marked, east-west strips traverse forest, thicket, fields, ravine and stream, swamp and rocky out crops. Since 1952 these approximately 1000 foot long transects were surveyed every ten years, documenting the establishment, growth and death of trees, shrubs, ferns and wildflowers over the 60 year period.

In the summer of 2012, Professor Chad Jones supervised the seventh survey with help from Lillian Fayerweather '13, Milan Saunders '13, Colin Lang '14 and Michael LeDuc '14. In addition to being excellent field work experience, the survey data collected by Milan and Lillian are being utilized in their

individual and honors studies with Professor Jones.

Since 1953 breeding bird censuses have also been conducted in the Bolleswood on a periodic basis. These surveys map the location of singing male birds during the spring breeding period. At the end of breeding season the maps are compiled and territories are outlined, with the assumption that each territory contains a nesting pair of birds. Combined with detailed records of the surrounding vegetation, the population data for breeding birds offers a powerful tool for generating hypotheses about the drivers of ecosystem change.

Professor and former Center Director Robert Askins, took charge of this long-term research project when he joined the faculty in 1981, and this year he was assisted in the census by Clara Chaisson '12 and Center certificate student, Mary Buchanan '14. Professor Askins has also developed a long-term database of waterfowl numbers during winters in the coves adjacent to the Arboretum's Mamacoke Island Natural Area.



Mary Buchanan '14, Clara Chaisson '12, Robert Askins



Colin Lang '14, Lily Fayerweather '13, Milan Saunders '13, Michael LeDuc '14

## CELEBRATING THE U.S. COAST GUARD'S GREEN DREAM TEAM AWARD

### AT THE 2012 GREENGOV

Presidential Awards Ceremony on the White House Complex at the Eisenhower Executive Office Building, the USCGA was recognized for its outstanding sustainability and community outreach efforts. This included, among other accomplishments, partnerships with the U.S. Fish and Wildlife Service, Connecticut College students and others on a roseate tern nest building project, and with the New London County Environmental Educators Coalition (NLCEEC) for a public forum on Long Island Sound. Amy Cabaniss represented Connecticut College and NLCEEC at the awards ceremony.



The award was presented by Nancy Sutley, Chair of the Council on Environmental Quality (center). Green Team Award members represent the U.S. Coast Guard Academy, U.S. Military Academy, U.S. Fish and Wildlife Service, Connecticut College and New London County Environmental Educators Coalition (Amy Cabaniss, 2nd from left).

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# THE QUEST FOR GLOBAL ENVIRONMENTAL EQUITY

IN AN INCREASINGLY INEQUITABLE WORLD



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