



CONNECTICUT COLLEGE

Class of 2014
Internship Reflection Papers

**Goodwin-Niering
Center for the Environment**



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Introduction

The Goodwin-Niering Center for the Environment at Connecticut College offers a certificate program that was developed to enrich the undergraduate experience with a concentration on environmental issues. Open to any major, it is particularly appealing to students who wish to blend their interest in the environment with a non-science major. With the help of a faculty advisor, students customize a curriculum including course work, seminars, and a conference.

During the summer following their junior year, students participate in highly structured internships, increasing the depth of their knowledge and commitment to the environment. These are professional level opportunities for students with career goals that include environmental policy, planning, law, economics, and education. The program enhances the effectiveness of internships by integrating them into the students' educational programs. The purpose of the internship is to offer students experiences that have a positive impact on their intellectual, professional and personal development through exposure to work environments that they might not otherwise encounter as an undergraduate. Students are offered access to stimulating ideas and people in their field of study and given substantive, meaningful work to do that will assist them in achieving their goals. On their return to college in the fall, they refine the relationship between their summer experiences and their senior integrative project.

In the summer of 2013, the thirteenth class of certificate students participated in a wide variety of internships. After returning to college in the fall the students wrote internship reflection papers detailing their experiences. The papers were edited for purposes of clarity and consistency and compiled into this volume for the class of 2014.

More information on the certificate program can be found on the Center's web site at: <http://goodwin-nieringcenter.conncoll.edu>.

Mary Buchanan
Biological Sciences major
Denison Pequotsepos Nature Center, Mystic, CT

Over the summer, I completed an internship at the Denison Pequotsepos Nature Center in Mystic, Connecticut, which aims to “inspire and nurture appreciation and scientific understanding of the natural world and foster a personal environmental ethic.” The Center acts as a museum, wildlife sanctuary, and environmental education center. My internship, which I designed in collaboration with Center director Margaret Jones, focused on the Coogan Farm property in Mystic, the Center’s latest land acquisition project. My internship had three components - a biology component, a conservation planning component, and a final integrative component designed to bring them together.

The biological research component of my internship gave me firsthand experience with independent fieldwork. I conducted weekly bird surveys on the Coogan Farm and the adjoining Nature Center property, identifying birds by their songs and building a picture of the abundance and distribution of bird species on the land. To supplement my fieldwork, I spent time delving into the scientific literature related to the species I found and their habitat needs, to evaluate which areas of the property were providing suitable habitat for these species and to determine how that habitat could be enhanced. I researched conservation strategies for species of special concern, as well as the land management techniques that would produce the desired habitat for these species. In addition to observing birds, I carried out vegetation surveys, noting the abundance and distribution of invasive and native species. Other fieldwork projects included mapping out potential trails, tagging native shrubs with blue ribbon, and looking for Eastern Box Turtles.

My fieldwork gave me ample experience with setting my own schedule and managing my own time. In the early days of the internship, the director of DPNC gave me a crash course in vegetation identification and outlined the bird survey route through the property that she thought would be most fruitful. After that, I was on my own for the majority of my fieldwork hours (even when those hours started at dawn). These experiences helped me to become more comfortable working independently and more confident in my identification skills for both flora and fauna.

My internship was also an opportunity to use GIS, a computer mapping system often used in environmental science. I have taken two GIS courses, and appreciated the chance to develop my skills further by making maps related to my fieldwork. Over the course of the summer, I created a variety of maps that explored and depicted characteristics of the Coogan Farm, such as wetland locations, distribution of fruit trees and invasive species in an heirloom orchard, and distribution of bird species of special conservation concern. Map-making gave me a unique way to convey the results of my fieldwork in a format that could be understood even by people who had never set foot on the property.

In order to develop a conservation plan, I needed to understand the Nature Center’s goals for the property, which will eventually be a public park. Each week I attended a meeting of the Coogan Farm Committee, which focused either on fundraising or on planning the future use and management of the farm. The weekly meeting was consistently one of the high points of my

week, as it gave me the chance to listen to the discussions of the committee members. After spending hours alone in the field, group meetings were a welcome change. The committee was a fascinating cast of characters, united in their passion for the farm property and the mammoth task of preserving it for the future.

Eventually I integrated the results of my fieldwork, my additional research into the scientific and management literature, and my impressions from the Coogan committee meetings by writing a land management plan specifically tailored to the Coogan Farm. This was one of the most satisfying parts of my job: translating abstract knowledge into practical guidelines rooted in the reality of a location that I had grown to know very well.

This summer I learned that both fundraising and land planning require cooperation and patience above all else. Originally I imagined that most land management decisions would be finalized during the summer while I could be there to witness the decision-making process. The central role that the Coogan Farm stands to play in Mystic, however, means there are a multitude of factors to consider before any decision becomes final. I witnessed several setbacks to original plans, and the timelines of certain projects were extended farther into the future than initially predicted. Many issues that I hoped to see addressed were deferred in order to prioritize more pressing issues. This was a valuable lesson, as it taught me to manage my expectations and emphasized the importance of careful consideration in order to make the most of the land.

The Coogan Farm property will not be simply a wildlife preserve – it will be a multi-use space and park for the entire Mystic community. As I carried out my research and devised land management recommendations, I had to balance the needs of wildlife with the needs of the town. I believe learning to appreciate the balance between human and wildlife needs (and remaining aware of the need to honor the expectations of campaign donors) has helped me to form a more nuanced and practical view of land management.

Although many of the decisions about land management at the Coogan Farm have yet to be made, and the planning process will continue far beyond this summer, I believe the results of my fieldwork and research, and the maps and management recommendations I left with the Nature Center, will continue to be helpful resources for the Coogan planning and management committees into the future.

My senior integrative project will be an honors thesis analyzing the long-term bird population trends in the Connecticut College Arboretum and relating those trends, if possible, to vegetation changes. My work this summer highlighted the importance of quality habitat to bird populations and gave me the opportunity to further develop my GIS skills, which I may use to help convey the results of my thesis analysis. Perhaps most importantly, my internship taught me the value of using a specific land area as a lens for learning about broader ecological concepts.

Emily Goldstein
Architectural Studies major, Philosophy minor
Amacher & Associates Architects, Cambridge, MA

For the summer of 2013 I had the privilege to work for a small sustainable architectural firm in Cambridge MA, called Amacher & Associates, Architects. The firm specializes in zero-net energy design, which allows the building or residence to be completely self-sustaining. With the incorporation of solar panels on the roof zero-net energy design allows for an extremely energy efficient building envelope, keeping the residence cool in the summer and warm in the winter. I was able to analyze and complete my own set of zero-net energy drawings and plans after researching material data and existing projects.

Seeking a sustainable architectural firm for my internship, I visited the Boston Society of Architects (BSA) web page for outstanding architecture firms incorporating green design. After I found and researched about two-dozen firms I started to send out my cover letter and resume in late January. I heard back from a few firms that had interest in speaking with me further within a few weeks. In early March I received a very enthusiastic email from a small firm in Cambridge to which I immediately followed up with several emails. Correspondence continued back and forth along with a phone interview and a scheduled interview in the firm's Cambridge office.

In mid March, I officially interviewed at the firm and was able to sit down and discuss goals and projects for the approaching summer. After agreeing upon set duties, skill development opportunities, and a tentative working timeline for the summer I was officially hired by the firm. It was determined that I would work roughly 300 hours between June 3rd, and August 2nd, consequently I worked over 350 hours between that same time period – completing all proposed work and projects.

During the first few weeks of my internship the bulk of my work was clerical with several hours a day dedicated to learning drafting software as well as compiling product information. Collecting data for products are essential to the work produced in firms and updating their data sets in a digital format was incredibly informative. Through online tutorials and one-on-one tutorials I was able to come to a base level of understanding and productivity with one of the most complex drafting software packages on the market today. Exposure to the intricate processes through which architects must work was my main objective of the summer; a goal that was met in full.

I applied critical and creative thinking skills to my work daily, as is required in order to produce a functional and provocative project worth building. Problem solving is essential when approaching a project, and an architect must always remain objective in order to produce the most functional product for the client rather than succumbing to personal preference. I spent a fair amount of time in the office on my personal computer, I had to excise a lot of self-discipline to stay on task and remain focused throughout the ten-hour day. The overall experience left me with the confidence to conduct myself in a professional manner and strengthened my time management skills.

Having small studio classes in the past prepared me well to work alongside a professional architect, as I have done twice in two separate semesters. I felt comfortable communicating my thoughts, ideas and questions with my supervisor in most part due to the individual attention and collaboration I have experienced in my previous classes at Connecticut College and abroad. My computer drafting skills were basic at best, but was something I was able to improve on prior to my internship and then continually throughout the summer on my own time. Overall I feel that my classes at Connecticut College and abroad prepared me very well to become an architectural intern, including my Goodwin-Niering seminars.

Coming away from my experience this summer I can confidently say that I would like to pursue a career in architecture. I love everything about the industry, from cutting edge design to philanthropic efforts to make the built environment better for the people that inhabit them. I have decided to apply to grad schools this fall and my internship has definitely influenced the direction in which I would like to head. Another fundamental learning objective I took away with me was the importance of a professional work atmosphere and how deeply it can affect the efficiency of a work place. Overall my internship provided me with the experience and guidance I needed in order to make an informed decision regarding career pursuits after college.

Heading into my senior year, I feel that while this internship may not have prepared me in the ways I anticipated, the experience overall has given me confidence to leap into my SIP at a full charge. I attended numerous lectures on urbanization and green urban growth hosted by the BSA and consulted on a zoning committee for cyclists and pedestrian travel and safety within Cambridge. From these experiences I feel I gained valuable insight that will allow me to successfully pursue my SIP topic; *The Green Urbanization of Boston*. I was taught to look at city plans with a critical eye and learned how to develop an idea and implement it in a successful and practical manner. The advanced software I got to play with over the summer will really help me take my project to the next level, allowing me to render my ideas with clarity that will help demonstrate the effectiveness of my design proposal. It will be a capstone project of everything I have learned as an architectural major and member of the Goodwin-Niering Center and will aid in my further development as an aspiring architect.

Barry Ke
Environmental Studies major, Economics minor
China Environmental Investment Union

During the summer of 2013, I had an internship at the China Environmental Investment Union in Beijing, China. China Environmental Investment Union is a professional environmental consulting firm, offering a variety of services such as consulting, investment, advisory, and environmental training programs. The Union's stated aim is to create opportunities for the Chinese environmental industry to develop its technology and promote China's environmental market.

Considering my aspiration to study the Equator Principles in the Goodwin-Niering Center, I had difficulties when I was searching for internships. I was faced with various companies and firms, each of which seemed to offer me an exploration platform to look at the Principles. Luckily, through my network with my friends in China, I found an internship at China Environmental Investment Union. I decided to intern at the Union, not only because it was located in Beijing, the capital of China, but also because it was one of the best environmental policy think tanks associated with Tsinghua University, one of the most prestigious schools in China.

My internship at China Environmental Investment Union started in mid-May and ended at the end of August. During my internship, I was assigned to help my colleagues write an article for a book, organize and prepare a training program and a conference on water treatment facility. My colleagues and supervisors were exceptionally positive and helpful, and encouraged me to research the Equator Principles. Before going to the internship, I already knew I would look at the implementation of the Equator Principles in Chinese financial institutions; I told my colleagues and supervisor right after I arrived. With a clear goal in mind, I had a productive and joyful summer experience.

Thanks to this experience, my research skills improved largely. I was able to look at the newest materials regarding the Equator Principles, and I finished an article on it with my supervisor's help. Among all the responsibilities, the research into the Equator Principles is pivotal to my internship and my senior integrative project in the Goodwin-Niering Center.

As a whole, the original learning objectives of my internship were achieved. The internship helped broaden my horizons in the field of environment. My internship was associated with the School of Environment at Tsinghua University, so I was able to attend the lectures held by the School of Environment. I went to most lectures that were held in the summer, and some of them expanded my knowledge and changed the way that I looked at environmental problems. For instance, there was a lecture on green building. This lecture explained how green building worked and discussed green building industry's future in China, which intrigued me. Becoming interested in green building, I decided to take the LEED Green Associate Credential exam, and I passed it in August. This exam has equipped me with a broad range of environmental knowledge, especially knowledge of green building. Also, the exam has helped me understand environmental issues to a comprehensive extent, and has directed my career path to green building industry.

The internship also taught me that communication skills are the most important factor in deciding success at work. I occasionally shared ideas and opinions regarding my research paper with my colleagues, such as what materials I should value the most, the techniques of laying out all the useful information by using mind map, and structure of my paper. In order to efficiently and effectively convey my opinions, I learned to display clarity and conciseness in my words. Being conscious of utterance ameliorated my communication skills, and this will help me give a clear and perspicuous presentation on my research topic in the Goodwin-Niering Center in the future.

My senior integrative project will look at the Equator Principles inside China. In my internship, I got a chance to study how European financial institutions helped Chinese financial institutions apply the Equator Principles. There are two European financial institutions, Agence Française de Développement (AFD) and KfW Bankengruppe (KfW), which financially support Chinese banks to practice the Equator Principles in the field of investment. My senior integrative project will research how the Equator Principles are applied between Chinese banks. I will pay particular attention to the Principles' mechanisms, problems, and recommendations. In this respect, what I accomplished in my internship is complementary to what I am going to do for my senior integrative project. In order to finish my project, I plan to take a 400-level individual study with Professor Visgilio. The individual study will center on a research paper that will explore the Equator Principles. Currently, I have outlined the research paper and started to work on the first part.

Jessie Mehrhoff
Environmental Studies and Economics majors
Appalachian Voices, Washington, D.C.

Mountaintop removal coal mining (MTR) has leveled over 500 Appalachian mountains to date. Appalachian Voices is a non-profit organization that brings together the expertise and talents of scientists, political scientists, field activists, and Appalachian residents to educate politicians about the destructive nature of MTR mining and the need to bring renewable energy to Appalachia. This mission is carried out through several campaigns, such as Appalachian Water Watch, Wise Energy for Virginia, and the End Mountaintop Removal Campaign.

Entering the End Mountaintop Removal Campaign as the summer's Mountaintop Removal Campaign Assistant, I was aware that my internship duties would tie together both political activism and community engagement efforts. I intended to conclude my summer with better knowledge of the U.S. political system, a larger activist tool-kit, and a strengthened understanding of the role that MTR plays in our energy economy. Fortunately, these objectives were met, but I now realize that I have much more to learn.

My office responsibilities varied daily with the only consistent task occurring each morning as I logged any mountaintop removal news into a Google Doc database that could be accessed throughout the organization. This ensured that Appalachian Voices could network with writers who routinely addressed the issues of MTR mining. The rest of my day's duties consisted of working on one of three major projects: lobbying on Capitol Hill, a letter to the editor drive, or an in-district meeting drive.

Prior to lobbying Congressional staffers, I was trained on how to best deliver information regarding the proposed Clean Water Protection Act (CWPA), a bill that would drastically reduce the feasibility of MTR mining. Through my lobbying activities, I strengthened my understanding of how bills move through the U.S. Congress, but was disappointed to learn that the meetings I attended led to no increase in bill support.

To enhance my understandings of grassroots activism efforts, I ran a letter-to-the-editor campaign. By utilizing the Appalachian Voices database of activists in key Congressional districts, I requested volunteers to write letters to the editors of their local papers urging that their representative sign on to the CWPA. Some volunteers chose to apply the templates that I had provided with the help of Appalachian Voices' media staff, whereas others took creative license in their writing. I had never considered letters to the editor a strongly effective form of activism, but the drive resulted in two Representatives joining in CWPA co-sponsorship, and emphasized the impact that local media can generate.

My final campaign responsibility was to guide constituents through setting up in-district visits during the August Congressional Recess. It is crucial for representatives to recognize that their constituents feel a strong connection to the issue of MTR mining. In order to grow Appalachian Voices' volunteer base, I not only relied on the database of activists, but also actively sought out branches of national environmental organizations, such as the Sierra Club, that would likely endorse the CWPA. Time restrictions did not allow me to complete this project, but prior to my

departure over twenty meetings were in the process of being scheduled. I prepared virtual and paper information packets for distribution to citizen lobbyists to ensure that they were sufficiently informed and prepared to discuss the CWPA with their Representative. I also provided guidance to citizens unfamiliar with how exactly to set up and organize an in-district meeting. Unfortunately, my internship ended prior to the end of the August Recess.

This internship emphasized the importance of strengthening the connection between grassroots activism and political lobbying to create an enforceable movement against MTR mining. I now believe that this linkage is important in all domestic environmental movements. Although I did not have the advantage of witnessing the outcome of the grassroots campaigns that I had championed during my final weeks, I can confidently state my desire to remain on this career path.

The Mountaintop Removal Campaign Assistantship provided vital insight for my Senior Integrative Project, a proposed honors thesis that will use a hybrid social movement theory to analyze and compare the differences in the outcomes of the movements against surface coal mining in the United States and Australia. MTR mining is the chief form of surface coal mining in the United States and therefore understanding its presence in policy and our energy economy are necessary to conduct this study. My internship with Appalachian Voices strengthened my understanding of the policies and laws governing the mining. Comparing this experience to the similar month-long internship that I held in Mackay, Queensland will allow for a broader understanding of the two movements that I compare in my thesis. I plan to use the information I gathered this summer to explore and explain the reasoning behind the divergence in movements against surface mining, despite similarities in resources available to activists in each country.

Emily Nixon
Environmental Studies and Hispanic Studies majors
Fintrac, Inc., Washington, D.C.

Fintrac, Inc. is an environmental consulting company with home offices in Washington, D.C. and the U.S. Virgin Islands. Working in tandem, these offices design, implement, and manage various agricultural development projects in South and Central America, Africa, and Asia; all of which are funded by the United States Agency for International Development (USAID). Owned entirely by women, Fintrac intends to strengthen national agriculture sectors in order to reduce poverty, improve food security, and promote economic growth in rural communities. More specifically, the company works with USAID and local personnel in order to increase crop production, improve postharvest handling techniques, add value to final products, and provide farmers with access to national and international markets to sell their goods. The company created their own Client Impact and Results Information System (CIRIS) in order to assess the number, gender, and demographic of clients and their families, local businesses, and other organizations, which has proved pivotal to documenting and conceptualizing the true impact of the projects. Since 2000, Fintrac projects have increased the incomes of 700,000 smallholder farmers, created more than 275,000 jobs in the agriculture sector, implemented sustainable practices on 350,000 hectares of land, and created \$830 million in agricultural revenue, all of which contributed to the food security of 4.5 million people.

As the “Project Management Intern,” my primary responsibility was to provide both technical and research support to the home office management teams who oversee the eight development projects currently being conducted in Cambodia, Ethiopia, Honduras, Kenya (2), Nepal, Tanzania, and Zimbabwe. My particular experience focused on two projects being implemented by Fintrac in Ethiopia and Honduras, both of which are funded by the United States Agency for International Development. The Capacity to Improve Agriculture and Food Security (CIAFS) is a four-year project based in Addis Ababa, Ethiopia that intends to administer trainings and implement good agricultural practices (GAPs) in order to improve food security and create a more competitive national agricultural sector. Similarly, ACCESO aims to promote economic development and improve health/nutrition practices with the ultimate goal of assisting more than 30,000 households in six of western Honduras’ most impoverished departments. The Project Management Team is essentially responsible for the management of the entire initiative: determining what can and cannot be purchased, organizing local trainings, workshops, and seminars, calculating and negotiating salaries, benefits, and holidays, answering any questions from the field staff, and a plethora of other tasks.

Throughout the summer, I had the opportunity to not only learn the logistical aspects of U.S. government-funded enterprises, but also calculate expense reports, balance invoices from in the field purchases, procure and certify crops from local growers to be exported internationally, as well as research and present the gender mainstreaming policies of various other competitor firms. Additionally, I was responsible for drafting and publishing the monthly progress reports, which documented such information as the number of training events, the demographic trends, and crop information. Lastly, I edited the success stories, known as “Snapshots,” that are written in the field and submitted to the home office for revisions and final approval. Cumulatively, this work provided me with a strong understanding of the requirements of implementing a meaningful and

successful development initiative, as well as insight into the complicated, and sometimes irritating, art of working on a government funded project.

While the internship allowed me to gain insight into the financial and technical aspects associated with developing and overseeing a 50+ million dollar agriculture development venture, it also resulted in many duties typical of a (low-level) management position. As all invoices, expense reports, salary cards, and reimbursement requests have to be meticulously documented and specifically formatted prior to being submitted to USAID for approval, many of my responsibilities centered around this work, and I therefore became extremely proficient using excel and other numerically-based programs. Additionally, as the team is responsible for vast number of documents, publications, contracts, and grants, information is constantly being uploaded and updated to internal management databases as well as the public company website. In short, while I am grateful to have worked on these projects that gave me a clearer understanding of the extensive behind-the-scenes work associated with development projects, a few of my responsibilities were geared more towards a person interested in finance or management instead of environmental studies.

Through my role as the Project Management Intern, I learned not only the fine-print details and nuances of government development projects but also the extensive responsibilities of the home office management team in ensuring the field work, trainings, and various programs produce the highest amount of impact possible. I was able to more clearly understand the direct and undeniable connections between agriculture, food security, and overall familial health, as well as the less obvious impact on women and youth, educational opportunities, and environmental stewardship. In order to implement Fintrac's methodologies and achieve the project's promised outcomes, the project management team works directly with agricultural specialists, including agronomists, economists, nutrition and gender experts, postharvest handling and processing technologists, as well as livestock, market development, and logistics specialists, all of whom provided their expertise and experience. This extensive involvement at a firm that is currently in the midst of managing such a wide variety of programs in numerous parts of the world provided me with both the experiential and qualitative data vital to my SIP. As an environmental consulting company working in the developing world, my internship at Fintrac, Inc. was highly applicable to my interests in sustainable agriculture and the various connections between how food is grown and the impacts on the global environment.

My proposed SIP focuses on agriculture in the developing world, specifically in Latin America. Sustainable agricultural practices must be implemented in order to increase production and promote food security, as well as to responsibly manage some of the world's most precious and finite resources: fertile soils, agricultural lands, fresh water, and biodiversity. However, while environmental stewardship should be an essential focus of food production, true and lasting preservation cannot be achieved until the farmers producing this food are earning sufficient incomes to provide food, healthcare, shelter, and a higher standard of living for their families. Based on my experiences obtained working with Fintrac as well as relevant scholarly sources, this study will attempt to analyze the current state of production methods as well as the potential development and sustainability of this agricultural system.

Chelsea Parish
International Relations major
The Trust for Public Land, Washington D.C.

The Trust for Public Land is a national land conservation organization, with offices across the United States. The mission of The Trust for Public Land (TPL) is to conserve land for people to enjoy as parks, gardens, and other natural places; ensuring livable communities for generations to come. The three primary initiatives of the organization are Land and Water, which focuses on wilderness conservation, Parks for People, which focuses on establishing parks in underserved areas, and lastly, Working Lands that conserve working farm lands. Funding for these initiatives is provided by donations, grants, and federal funding. The Washington D.C. office in which I interned during the summer of 2013 focuses on lobbying efforts that obtain and preserve federal funding. The primary funding sources at the federal level for TPL includes: the Land and Water Conservation Fund (LWCF), the Forest Legacy Program, and the Federal Lands Transactions Facilitation Fund.

As the Federal Affairs Intern in D.C., I had a variety of responsibilities including: writing policy briefs, attending House and Senate subcommittee hearings, researching politicians, potential funding, following bills on the docket, writing some requests and invitations. At the beginning of my time in D.C., I was exposed to the “language of D.C.” and learned the inner workings of researching politicians, looking up donors, and following bills on the docket.

I was first exposed to lobbying efforts by TPL during “GO WEEK”, which was focused on lobbying for the LWCF. This week brought in active community members and project leaders from around the country to lobby for support for LWCF. A key speaker and ally of TPL during the events was Senator Martin Heinrich of New Mexico. His speech focused on why it’s important that advocates of the outdoors continue to push lawmakers to do the right thing and to support progress on outdoor issues. I attended various lobbying meetings with Congressional staffers on why LWCF needs to remain an authorized part of fiscal year 2014.

Another key responsibility of my internship was following bills on the docket. Primary bills that I followed were Senate Bill 368, which would reauthorize FLTFA, Senate Bill 312 that would authorize funding for Miranda Canyon, a TPL project, and Senate Bill 630 the FAIR Act, which pertains to the allocation of rents accrued from offshore drilling. An aspect of following bills that I did not foresee included waiting in line for Senate and House subcommittee meetings to ensure access to various hearings.

Research projects that I worked on throughout the course of my internship focused on politician funding sources, and potential green infrastructure funding sources, and a local conflict over a federal land designation. To research the funding sources of politicians I used public websites to look at donors for possible overlaps with TPL. Researching potential green infrastructure highlighted the need of nonprofits to adjust to budget constraints and to think of creative new ways to frame issues in order to broaden potential funding for TPL projects. Lastly I researched Blueways, a new federal land designation that was locally criticized, which resulted in the hold of the designations by Department of the Interior Secretary Jewel.

This internship exceeded my expectations because of my exposure to politics in Washington D.C. My objectives were to learn about the operations of an environmental nonprofit and the channels in which they pursue federal policy to support their needs. I found the time I spent out of the office very valuable. One of my most valuable experiences was attending meetings with congressional staff members, which allowed me to see firsthand how lobbying functions within TPL. It was also fascinating to watch bills unfold in subcommittee hearings in the House and the Senate. As a learning experience it provided a unique view into hearings on the environment and political lobbying in D.C. It presented me with larger questions about the success of environmental lobbying, the future of environmental policy, and new ways to frame issues to gain public and political support for the environment.

My internship reoriented my senior integrative project to focus on domestic politics. My experience at TPL exposed me to the framing of environmental issues and the importance of political allies. Historical funding for land conservation, and various environmental sectors is threaten by belt-tightening and future budget constraints. Environmental groups are faced with new challenges in order to continue their work.

Katie Surrey-Bergman
Environmental Studies major
Woods Hole Oceanographic Institution, MBL, Woods Hole, MA

This past summer I was living and working at Woods Hole on Cape Cod at the Marine Biological Laboratories (MBL). MBL is an international center for training, education and research in the environmental and biological fields, including ecology, medicine, microbiology and genetics. It is the oldest private center for marine research in the country and is known around the world for its incredible, groundbreaking research. Throughout the year there are approximately 270 full-time scientists and staff at the center; however during the summer another 1,700 students and researchers from all over the world visit MBL as well to participate in on-going research or attend the multitude of interesting biology seminars offered throughout the summer months.

It was through a connection that I was informally introduced to Dr. Chris Neill, the head of the Ecosystems Center at MBL. Chris is working on several ecology-based projects located around the world, however his most recent venture is the “Naushon Project”, which focuses on studying the grasslands ecosystem on the nearby Naushon Island. This project is a five-year study that concentrates on the assessment and restoration of the valuable coastal grasslands found on the island. Coastal and sand plain grasslands are ecologically valuable habitats, containing many species of rare and endangered plants and providing much needed breeding and nesting grounds for migratory bird species. Over the past few hundred years this habitat has been drastically altered by agriculture and settlement, limiting the global distribution of these habitats and making them high priorities for conservation. Their historical significance has also made them cherished for their aesthetic appeal as well, however the gradual decline of agricultural practices and removal of domestic herbivores on Naushon, allowed for the shrub habitat (namely catbrier and huckleberry) to reclaim the coastal meadows. However, instead of using chemicals and controlled burning to remove the shrubs (which is more complicated and dangerous), the project proposed to use a cattle herd and a variety of anthropogenic mowing frequencies to assess the role these two methods play in the management and restoration of coastal grassland habitat.

My job this summer was to help with the physical setup of the fence lines for the experiments and to conduct vegetation analyses. To monitor the effects of each of the methods, we set up three different components: enclosures, (which would contain cows and would test at what herd density the cows could be encouraged to graze on the shrubs instead of the more palatable grasses); exclosures, (which would keep the animals out, allowing the grasses to grow unimpeded and without being influenced by the presence of cattle) and lastly the edges, (which were located in ecotones where the shrub cover met the grass habitat, and were used to monitor the natural encroachment rate of the shrubs). Each of these different studies contained several trials and a control. After the fences were set up, we worked on vegetation surveys as well as soil analyses (e.g. potassium chloride extractions, soil densities etc) to get an idea of how fertile the grasslands were. For the vegetation surveys, we would lay out 3x3 m squares and visually assess the percent composition of each plant species found within the square. We added this data to an existing database that contained information from the past few years. Vegetation analysis

surveys are conducted twice a year in July and August, which mark the height of the growing season for different species of plants to allow for easier identification.

Looking back at my internship proposal, I believe almost all of my goals were met. It gave me a great opportunity to engage in more intensive hands-on fieldwork, as well as the chance to practice working with minimal supervision. My supervisor, Chris Neill, holds a prestigious position at MBL and thus is involved in many different projects at the same time. This meant that he was not monitoring my work every day, and I (along with the three other interns), had to make our own schedules and ensure that we got our daily tasks done in a timely manner. Furthermore I got to practice working in groups of my peers (including sharing and discussing different ideas), as well as alone. Lastly, this summer provided amazing exposure and networking at a reputable organization like Marine Biological Laboratories. Unfortunately I was not able to work on an independent study project and so was not able to tie this internship back to my senior thesis. Originally, Chris and I were planning on attempting to incorporate a “grazing assessment” portion of the project, so I could study the effects that large grazing herbivores (in this case cows), have on the ecosystems. I hoped that this might be able to be applied to my thesis and compared to how elephants also can influence their environments through their grazing habits. However, due to time constraints we were unable to complete the “cow” part of the study and so I was unable to complete an independent project.

For my senior thesis I am planning on doing a study of current endangered species issues, through close examination of the African Elephant issue, researching which countries in Africa have been more successful in their conservation efforts than others and what potential reasons may be. My research so far seems to be revealing a need for a high level of involvement from the local communities, allowing them to gain a sense of proprietorship over the wildlife and actually receive benefits from their presence, instead of just viewing them as a hassle or nuisance. Unfortunately, many attempts at integrating the local and outside efforts have yielded little success and my study will hopefully deduce why, and propose some suggestions that might allow more room for success.