Portfolio of Experience
Summer Internship Program 2007

Environmental Leadership Center
OF WARREN WILSON COLLEGE
Dear Friends,

Since 1996, more than two hundred and fifty Warren Wilson College students have spent their summers as interns at some of the finest environmental organizations in the Americas. They have learned lessons that cannot be replicated in the classroom. Hands-on lessons that engage passion with real work, affirm commitments to make a difference in the world and toughen resolve.

Warren Wilson College is known for its unique Triad of liberal arts education - academics, work and service. The campus is a dynamic learning laboratory - a community knitted by a common environmental ethos. Internships provide an opportunity to experience the challenges of the world beyond, where environmental commitments are not the prevailing ethic, and each day of conservation work requires the energy and the determination of a political campaign. Field research with world class scientists, environmental education for people from all walks of life, policy-shaping in federal bureaucracies, single-handed protection of fragile turtle nests - summer internships such as these have proven to be life-changing experiences.

Reflecting upon the value of her 2007 Nature Conservancy Internship, Nora Purcell notes, “Individuals may not be able to single-handedly fix problems, but they can certainly educate their communities. This realization has revolutionized my worldview, stirring me to look outside myself for solutions.” Internships provoke such insights as “revolutionized” worldviews, lifelong commitments to conservation work, and discoveries of true career paths.

Now back at Warren Wilson, the 2007 Interns are recording public radio broadcasts about their summer experiences for our weekly program, the Swannanoa Journal (listen to these at www.warren-wilson.edu/~elc/ and link to Swannanoa Journal) and providing a speakers’ bureau for the campus and the region, inspiring civic clubs, faith groups, and others.

These are remarkable young people, deeply committed to making a positive difference, and well-versed in what it takes. We honor the 2007 Environmental Leadership Center Interns and invite you to read excerpts in this Portfolio about their work.

Margo Nottoli Flood
Director
Environmental Leadership Center
Mission of the Environmental Leadership Center of Warren Wilson College

The mission of the Environmental Leadership Center (ELC) is to raise awareness of local, national, and global environmental realities and to inspire caring citizens – especially youth – to reflect, to communicate and to act as responsible caretakers of the earth. Warren Wilson College’s commitment to environmental responsibility is reflected in the programs of the ELC. Through its Internships, EcoTeam environmental education program, Catalyst newsletter, Heartstone, Swannanoa Journal public radio broadcasts, Green Walkabout©, Mountain Green Initiative for responsible growth of our mountain region, climate change partnership with the City of Asheville, and the Environmental Voices speaker series, the ELC inspires environmental citizenship on campus and beyond.

Environmental Leadership Center Staff

Margo Nottoli Flood Director
Stan Cross Education Director
Phillip Ray Gibson Director of Community Outreach
Ellen W. Querin Administrative Assistant
Courtney Cochran, Publications Assistant Editor

Educationally effective colleges and universities offer a variety of learning opportunities inside and outside the classroom that complement the goals of the academic program... [including] internships, community service, and senior capstone courses that provide students with opportunities to synthesize, integrate, and apply their knowledge. As a result, learning is deeper, more meaningful, and ultimately more useful because what students know becomes a part of who they are.

National Survey of Student Engagement, 2007

About the Internship Awards

Environmental Leadership Center Internship Awards are offered to sophomores and juniors at Warren Wilson College on a competitive basis. They include stipends, travel, and housing. Criteria for selection are a demonstrated commitment to academic excellence, personal integrity, and environmental citizenship. The Internship Program includes the summer work experience and a communications component fulfilled upon returning to school. Interns commit to three public presentations about their experience to be delivered on and off campus and to the development of an essay for the ELC’s public radio broadcast, the Swannanoa Journal. These presentations educate and inspire diverse audiences about the importance of environmental citizenship and provide valuable public speaking experience for the Interns.

Contact Stan Cross, Environmental Leadership Center Education Director, for information about Internships (scross@warren-wilson.edu or 828.771.3782) or to request an Intern speaker. Visit the Internship Program’s website at www.warren-wilson.edu/~elc/ for more information.

If you are interested in supporting the Internship Program, contact Margo Flood, Director, Environmental Leadership Center (828.771.2002 or mflood@warren-wilson.edu).
This unique healing farm community provides a comprehensive program close to nature for individuals with mental illness and emotional distress that addresses the needs of their mind, body and spirit.

The residents at CooperRiis are some of the wisest people I have ever met. I learned so much from them during my time there, I almost think that I gained more from the experience than I was able to give, and I felt like I was giving the whole time I was there.

No two days of working at CooperRiis were ever the same. I had to be fully present and engaged every moment of every day that I worked there because each day presented new and sometimes very difficult challenges. I realized during my time there that the residents at CooperRiis have been to the edge of life and back, and many of them are still sitting on that edge, swaying back and forth, unsure of what living really means. I was humbled more times than I can remember by their life stories, struggles, and hardships. Their awareness of their situations sometimes moved me so deeply that I had to immediately shut off all of my emotions. I was awed by the pain, suffering, and bad experiences they have had.

I was also deeply moved by the compassion and kindness of all of the staff, who work there because they genuinely are concerned with the well-being of other members in this society. I am so grateful that places like CooperRiis exist to help those who are in great need. I gained a tremendous appreciation for life this past summer that I will take with me wherever I go.

CooperRiis is an amazing place. My internship there this past summer was one of the most challenging and rewarding experiences I have ever had. I wouldn’t trade my experience this summer for anything.

---

Ryan worked as an intern in the Fish and Invertebrate Ecology Laboratory at the Smithsonian Environmental Research Center in 2007 under the direction of myself and Dr. Anson Hines. Internships in our laboratory are rigorous, and generally involve field, laboratory, and analysis components. One of our current projects is to assess the feasibility of stock enhancement for the blue crab in Chesapeake Bay, and involves releasing hatchery-reared blue crabs into underutilized nursery habitats in the upper Chesapeake Bay. Many intern projects in our laboratory were delayed because hatchery-reared crabs were not available early in the summer. Despite this potential setback, Ryan showed initiative by approaching me early in his internship with several potential research questions and designs for experiments. His eventual project entitled “Optimizing survival of hatchery raised juvenile blue crabs: micro-habitat of release site” included an intensive field component and was among the best of all interns in 2007. His research provided valuable information that will be integrated with ongoing work to help determine the potential of stock enhancement for the blue crab in Chesapeake Bay. Additionally, his project required long hours for extended periods including working on weekends. Ryan proved to be responsible, hard-working, intelligent, intuitive, and eager to learn. He worked under adverse field conditions and difficult schedules with enthusiasm and without complaint. Additionally, Ryan was friendly, interacted well with others and was respected by both the laboratory staff and his peers. In short, Ryan greatly impressed me during the length of his internship. (See page 10.)

Eric Johnson, Ph.D., Ecologist
Smithsonian Environmental Research Center
EARTH University
Guacimo, Costa Rica

Interns: Lauren Bangasser, Amy Woychowski

EARTH University is a four-year private, nonprofit agricultural university located in the Limon province in Costa Rica. The school brings together students from throughout Central and South America, and several African and Asian nations. The curriculum seeks to provide students with a balance of academic and hands-on studies in Agronomy Engineering. The university’s mission is to “Prepare leaders with ethical values to contribute to the sustainable development of the humid tropics and to construct a prosperous and just society.”

Lauren Bangasser

My primary objectives at EARTH were to practice Spanish and to expose myself to many new cultural and labor experiences. Instead of being assigned to work on one project, I requested a program that incorporated working in the fields, labs, classrooms, and gardens with both the students and the local workers.

Each day was a new adventure, beginning with hands-on work in the fields and afternoon classes in whichever crop was being focused on. At the Harvest Center we might work with a crop, then spend the afternoon learning about the germination process and optimal growing conditions. The evening Spanish class might be a discussion on the pros and cons of a pending free trade agreement in Costa Rica, or discovering that the immigrant worker issues we deal with in the US are present in Latin America as well.

Going to a foreign country with very little knowledge felt like a blind leap of faith. By the end of the summer I felt like I could understand Spanish as well as English and could communicate whatever I needed, even if it was not eloquent. Talking with the students was a challenge because they used lots of slang that I was unfamiliar with. I think my biggest personal achievement of the summer was deciding that I would not shy away from conversations, even if I felt anxious.

All in all, it was a wonderful experience and I feel incredibly fortunate to have had it. Thank you to everyone who made my summer at EARTH University possible.

Amy Woychowski

It is difficult to pinpoint a single identifying accomplishment from my internship at EARTH University; every day was successful in one way or another, a new experience to say the least. Starting at the crack of dawn and often lasting until dinner time, ‘hard work’ does not capture the welcomed intensity that filled every day. My mind and body were tested in an arcane yet magnificent way. Just a few of the tangible accomplishments from this experience range from harvesting cocoa beans and producing chocolate, assisting in the creation of a lindisimo native garden in the central campus, making soaps and lotions from medicinal plants in the herbal garden, to learning to successfully transplant different types of flora.

Because of the never-ending adventures in this absolute wonderland, leaving was by far my most difficult challenge. Sooner than I could have ever imagined, the people I interacted with had become my family, and EARTH my home.

I came away from this internship having mountains of information in my head. Although I am not certain about my exact steps now, I am enthusiastic to start educating others about my experience. I would like to center my attention on children; as so many have said before me, they are the future of our lives and our planet. EARTH is an agriculturally based university, but it teaches far beyond the confines of the word “agriculture.” The people and the place give students – and interns – the foundation needed to change lives.

To everyone at EARTH, to all of the ELC, to Lauren (my intern in crime) and to anyone else who made this trip a possibility: I wish a thank you were enough. It was more than a dream come true.
The Seabird Restoration Project began in 1973, when Dr. Stephen Kress brought baby Atlantic puffins from Newfoundland to restore them to their native habitat. Since the early 1970's, the Project Puffin has sought to restore puffins to Eastern Egg Rock in the Gulf of Maine. Since then, interns and supervisors have been working on seven different islands with a variety of seabirds, including puffins, eiders, terns, guillemots, and razorbills, to ensure their survival. The project has now expanded to protect other species that are in need of help, including the roseate tern and the razorbill.

Delaney Burke

This summer, I worked between different islands doing tern research, feeding studies, productivity plots, and band re-sighting. I also worked with puffins trying to establish breeders with burrows, and Eider tern nest monitoring and banding.

I was nervous at the beginning of my internship; I did not know birds and felt generally intimidated by everyone because they knew each other and the birds. However, being thrown onto a research island quickly taught me all that I needed to know. Sitting in blinds, I came to know the terns, learning their behavior, how to identify the fish within seconds of being eaten, how to band tiny chicks, how to read tern and puffin bands through a scope, and how to work as part of a research team. It would be impossible to run one of these islands alone, so working and living together is an important skill to develop, no means a walk in the park working on an island with four other people.

The Project Puffin gave me entirely new experiences. I fell in love with birds and field work, and learned to appreciate research. Before, I would read scientific journals without considering the physical aspect the work. Now, from doing my own personal research, I understand the time commitment and value of research as a means to study and communicate with the world about what is going on. I am excited to analyze my personal data, and work on other research projects in the future.

Sarah Pierce

I open my eyes to the sound of my alarm and look up to see silhouettes of little webbed feet directly above me. As I step into the morning light my hands go instinctively to my head, warding off angry cries and attacks from the common terns nesting directly beside my tent platform. It’s the start of a new day at the Seabird Restoration Project, where I work as a research assistant and experience seabird nesting season in all of its glory.

Armed with a banding kit, we walk into a colony of common terns, where the sound of their protesting cries is deafening. Despite the sorry welcome, we sit among the nests to band the day’s new chicks. Their tiny legs are surprisingly strong to an inexperienced bander, and a firm hand on the pliers is needed to wrap the tiny metal band around each chick’s brand new leg.

If I had to describe my favorite part of this summer in one word, it would be GRUB. Grubbing is the extraction of baby puffins from their burrows by whatever creative means possible. I preferred the head-first method: don’t think about how to get back out, just go for it. I had to be hauled out by my ankles more than once. The grey, muppet like baby birds are more dear to me than words. Knowing I might never hold one again breaks my heart.

Six hours a day are spent in a tiny wooden blind, binoculars in hand observing adult terns bringing fish to their chicks, followed by an evening spent banding and measuring roseate tern chicks. After a twelve hour day, we cook dinner over a gas stove. This is our free time, yet as we sit in the fresh island air, there is only one thing we want to talk about: the little creatures whose lives we are witnessing, the sea birds we have come to protect.
The Nature Conservancy (TNC) is a highly respected organization working to protect rare natural communities across the globe. The Nature Conservancy has joined with the US Fish and Wildlife Service and the NY Department of Environmental Conservation focusing on the piping plover and the least tern, Eastern Long Island’s endangered shore birds.

The more I consider the events of my summer internship, the more I am able to embrace the learning that can only occur under the persistent shadow of trials and frustrations.

It was my job to monitor and attempt to protect the piping plovers and least terns on eight miles of beach located on Westhampton Island, where significant development pressure threatens the fragile ecosystem of dunes. People have not only destroyed the breeding habitat of plovers and terns, their presence on the beach disturbs the birds’ ability to incubate eggs.

We immersed ourselves completely in the work of protecting endangered birds, following developments in their lives as though we were fans of a riveting avian soap opera. As the weeks marched onward, it was evident that human activity cleaved a deadly imbalance in the ecosystem. An astonishing 82% of the piping plover eggs failed to produce fledglings and entire tern colonies disappeared without a trace. Yet the summer was also highlighted by the many occasions when we were able to explain the plight of the birds to local residents and secure their support.

Through these experiences, I came to realize that inspiring one’s neighbors to value an endangered species can lead to far more good than the most meticulous notes hidden away in a field log. Individuals may not be able to single-handedly fix problems, but they can certainly educate their communities. This realization has revolutionized my worldview, stirring me to look outside myself for solutions. I hope to carry this sentiment with me throughout my life as I pursue a career in environmental law and a lifetime of active citizenship. Thanks to this internship, my new goal is to connect long-term solutions with pressing problems by engaging directly with the region, community, and ecosystems involved.

When I look at the wave of Warren Wilson alumni now working in conservation biology positions, I’m struck by how many of them were Environmental Leadership Center Interns. This can’t be a coincidence. Holding an endangered species in the hand is a profound experience. A person is never quite the same after making eye contact with a species whose numbers are steeply declining.

Louise Weber, Ph.D., Chair, Environmental Studies, Warren Wilson College
The Nature Conservancy
Saluda, North Carolina
Intern: Zoe Minderovic

The Nature Conservancy’s mission statement is “To preserve the plants, animals, and natural systems that represent the diversity of life on earth by protecting the land and waters they need to survive.” The internship locale is primarily Hickory Nut Gorge in western North Carolina. Hickory Nut Gorge is the very northern tip of the Southern Blue Ridge Escarpment for The Nature Conservancy. The Escarpment stretches south into Georgia and is composed of a number of ecologically significant areas based on biodiversity, topography, and conservation efforts relating to recovery and maintenance of forested areas.

The best part of my internship was the opportunity to lead hikes up the caves twice a week. I looked forward to Wednesdays and Saturdays with anticipation about who I would meet that day and what we might see, like the day we ran into a turtle gobbling down a snail. Moments like this put me and the hikers on the same level, equally excited to see something totally unexpected.

Leading the hikes was also a great opportunity to exercise skills as an environmental educator. It was validating to see and hear the reactions to the information I shared, and the way in which I shared it. To my surprise, I was able to develop a very friendly and easy rapport with all of the hikers - especially the children. My confidence grew throughout the summer as I received countless compliments and encouragement from hikers. It really validated the fact that environmental education is my niche.

I also enjoyed the times I was able to spend alone on the preserve, and I came to love the Hickory Nut Gorge as a second home. I loved listening to the river, the “Granddaddy Grapevine” (a HUGE vine probably 100-150 years old, stretching 40-60 feet up into the canopy), the crevice salamanders, the natural air conditioning, and of course the caves. It was a true privilege to see areas in this region very few people ever see, and have the time to become close to it. It served as a greater inspiration and motivation to work educating people about the importance of places like this throughout western North Carolina.

North Carolina Coastal Federation
Newport, North Carolina
Intern: Kayleigh Burgess

The North Carolina Coastal Federation is the state’s largest coastal conservation nonprofit. Consisting of eight grassroots organizations on the coast of North Carolina, the NCCF’s mission is to rehabilitate and preserve North Carolina’s coastline.

Cape Lookout National Seashore stands among the continuous stretch of barrier islands along the North Carolina shore as the last remaining group of undeveloped islands. I started most mornings on a boat ride past Shackleford Banks, home to approximately 120 wild horses, and Bird Island, home to many thousands of pelicans, gulls, and terns. From this base we would talk to visitors, often doing demonstrations, games, and seine nettings while educating them about the abundance of life that goes unnoticed right below the ocean’s surface. My main task was to inform visitors of the crucial, diverse, and ever-changing ecology of the barrier islands, taking them on hikes across the island of South Core Banks to explore its dynamic ecosystems. At less than half a mile wide, South Core Banks is home to five distinct ecosystems, ranging from sound to wetland to forest to dune. This diversity and richness in life provided a fulfilling experience, both teaching and exploring.

For me, learning about Barrier Island Ecology was fascinating. Some days I found myself monitoring plant growth at the site of North River Farms, which is in the process of being converted back to wetland. Other days I found myself hauling oyster bags to create oyster reefs in the sound or working on educational materials for the sites the Coastal Federation has rehabilitated and opened to the public. Interning with the North Carolina Coastal Federation was rewarding, hands on, and as much a learning experience for me as for those I taught.
Programme for Belize
Field Bank Station, Belize
Interns: Ronnie Anderson, Kenmei Kato

Programme for Belize is a nonprofit organization established to conserve the national heritage of Belize while promoting sustainable use of Belize’s natural resources and biodiversity. Programme for Belize manages the Rio Bravo Conservation and Management Area (a tri-national reserve that stretches into Guatemala and Mexico), the La Milpa eco-tourism archaeological site, and the Hill Bank field research center and sustainable forestry program.

Ronnie Anderson

My internship with Programme for Belize was full of revelations of varying kinds and significance. I learned a lot about myself including that I am capable of not only surviving an experience like this but thriving on it. I came back strong, self-confident, and re-committed to doing what I can to save the natural world from humanity and humanity from itself. More importantly I realized that I am not alone in that effort, but can find allies all over the world, from all walks of life, working towards common goals.

Conservation in the books is nice and straightforward but does not begin to capture the reality. Conservation work is backbreaking labor, heart-wrenching losses, sweat, tears and abject failures occasionally punctuated with brilliant success. During our stay, we had a window into this world. We saw stark reminders of what happens to nature when it is left unprotected, making it painfully obvious how much is at stake. Lack of funds, poaching, and encroaching agriculture all conspire to destroy the project. The staff deal with atrocities on a regular basis yet still soldier on. Despite setback after setback, they fight to preserve the majesty of the Belizean rainforest, home to the elusive jaguar, the gentle tapir, raucous monkeys and birds of all colors and sizes.

Here’s some tips for living in Belize: Use all of your senses. Wear dirt-colored clothes. Bring candles and Benadryl. That pretty orange fly with the green eyes, kill it before it bites you and makes your life miserable. The rash from green mangos only lasts a couple days. And most importantly: be flexible because life in Belize is full of unexpected twists and turns.

Kenmei Kato

When you remove yourself from your comfort zone, the opportunity to learn something new and amazing pops right in. Being in Belize was a great opportunity to submerge myself into other cultures and work alongside a conservation organization. The experience to actually be there reminded me of why I’m studying conservation biology.

We went out with the Rangers who patrolled the reserve, learned about the sustainable forestry program, and experienced the diversity of cultures in Belize. By the end of our seven-week work period I built a rock wall for a garden, created a volleyball field, and helped with a community outreach program involving Mayan children. Working with Programme for Belize allowed me to understand the difficulties of maintaining a large reserve, completing projects with low funding, and dealing with poachers and illegal loggers. I experienced first hand some of the hardships of trying to protect wildlife, teaching me of the harsh realities that exist in conserving biodiversity.

Being in Belize has taught me that building constructive relationships are important to make a difference. I walked on the airplane with a new sense of courage and confidence, a stronger person. Everything I learned, from using a machete to spending time with Mayan children, I can apply to my life. My perception of the world has expanded and my understanding for people has broadened. I want to be a full time learner and travel to foreign lands.
Smithsonian Environmental Research Center
Edgewater, Maryland
*Intern*: Ryan Exline

The Smithsonian Environmental Research Center (SERC) is located on the Rhode River estuary of the Chesapeake Bay, just south of Annapolis, Maryland. The Center’s mission is to advance the stewardship of the biosphere through interdisciplinary research and education.

2,800 acres of forest, freshwater wetlands, tidal marshes, and estuary habitats. 180 researchers, technicians, and students working for 17 of the world’s senior scientists in their respective fields. Welcome to the Smithsonian Environmental Research Center, where I had the opportunity to intern this summer. Experience, confidence in my abilities, and new interests in areas of ecology were just a few things I got from this internship.

At SERC this summer I worked in the fish and invertebrate ecology lab, lead by crustaceologist and SERC director Dr. Anson Hines. In the last two decades the spawning population of the blue crab has declined by about 80%. The SERC is studying the feasibility of large scale stock enhancement to aid population recovery for this culturally and economically important species.

This summer the lab released approximately 38,000 juvenile crabs in three releases, one of which was given to me to oversee as my summer project. Organizing the team, counting, tagging, and releasing 16,000 crabs in four sites over two days proved to be the most challenging part of my internship. Yet it was by far the most rewarding. I struggled through, watching researchers and lab technicians bite their tongues as I figured out how to get 16,000 crabs tagged and in the water alive. It was the greatest feeling of accomplishment to watch them swim away.

Tom Yawkey Wildlife Center
South Island, South Carolina
*Intern*: Amy Rowlatt

South Island in the Tom Yawkey Wildlife Center is home to a significant percentage of sea turtle activity. The Turtle Conservation Program coordinates the efforts of volunteers along four miles and 12 nesting sites along the coast, monitoring the activities, movement, and strandings of the threatened loggerhead sea turtle, the endangered leatherback sea turtle, and green and Kemp’s Ridley sea turtles.

When I arrived at the Tom Yawkey Wildlife Center I felt I was walking into the complete unknown. Some gear, a phone number to call if I needed help, and a positive attitude were all I really needed to survive at Yawkey and fulfill my role of sea turtle protector.

I began my days at sunrise, putting the truck in four wheel drive as I hauled slowly over the dunes onto the four miles of beach. I located a total of 83 nests during my internship. I checked each nest for signs of hatchling emergence in the form of small concave marks in the sand or tiny tracks out to sea. Much of my energy was spent hoping for the best, yet preparing for the worst. Some days I discovered dead carcasses, rotten un-hatched eggs, and empty egg shells. Other days I had the pleasure of rescuing stragglers from the nest remains and the deadly ghost crabs as hatchlings emerged, making me more passionate about my work.

It is this passion that has driven me, teaching me perseverance, improvisation, and patience. Being in the elements is hard, with scorching heat, sand fleas, and monstrous swarms of bugs. My greatest recommendation: go out with an open mind, expect nothing, and let your love for the natural environment reign supreme.

Working and living on South Island gave me a better idea of what it would be like to have a career in conservation biology, working the dream job with hands-on experience in a natural setting. I loved it all. I will always remember my summer with the turtles, but look forward to the prospect of helping other species in their future recovery.
Tropical Forestry Initiative
Tres Piedras, Costa Rica

Interns: Heather Aziz, Aubrey Delone, Julia Mead

The Tropical Forestry Initiative gives students an opportunity to learn about Costa Rican ecology while working on reforestation projects to restore rainforests by planting and managing indigenous tree species. With the help of volunteers TFI has planted over 40,000 trees of 35 forest species from seeds collected in nearby forests. Volunteers record the growth performance and access the site requirements to decide which native trees will flourish. Using methods from the Smithsonian Institute, TFI has begun mapping vegetation and monitoring changes in the diversity and abundance of birds, reptiles and amphibians, which are indicators of overall biodiversity on the preserve.

Heather Aziz

My specific assignment at TFI was the butterfly project, working to identify butterflies in 16 catch and release traps placed throughout the property. Every afternoon we would trudge up the mountainside to check the traps and identify the butterflies found inside. Our assignment was to see what types of butterflies would return to a secondary growth forest. Through our research I learned how to identify and handle over eighty different butterflies up close and free them from nets.

Mornings were usually filled with planting rainforest trees to stop field erosion in what were once cow pastures. Once breakfast was finished, we went rumbling down the dirt road, up and down mountains, across rickety bridges, through small streams and then up and up until finally we arrived at our destination. Filling our buckets with trees, we would walk up dirt roads mostly washed away by heavy rain to where we were going to plant for the morning. Hacking at the long grass with machetes and planting took up the better part of the morning, followed by a lunch of rice, beans, and a fried egg wrapped neatly into banana leaves. Then it was back down the mountain to the van, usually in pouring rain. During the course of the internship, we planted trees in over 15 fields, beginning the process of re-forestation.

One of my most important achievements in Costa Rica was to learn about another culture through actual emersion, allowing me to get a handle on how the actual people think, and understand the social and political situation. I was able to speak intelligently with Costa Ricans about both the current politics and the importance of the rainforest in which they live. I was actually able to help people restore their land and learn about the ecology of the rainforest. This has been one of the most impressive learning experiences I have had in my life.

Tropical Forestry Initiative Interns
continued on next page

The primary value of the Warren Wilson College interns is that they bring different and practical experience to Tropical Forestry Initiative. They know how to do forestry or gardening or farming or education because they have done the work as part of their Warren Wilson experience. This is very useful because we can give them a project and they will run with it - sometimes even teach us things we do not know how to do. They bring the practical skill of work to life.

Richard Andrus, Associate Professor of Environmental Studies
Binghamton University
Chairman of Tropical Forestry Initiative
Every morning I would wake up to a broad range of bird songs at around 6 a.m. The sun rises early in Costa Rica and so do the natives. For the first two weeks of the internship I worked on constructing a tilapia pond. Tropical Forestry Initiative is trying to become more self-sufficient and sustainable. This tilapia pond is one of the projects which will provide the people with local food. After a hearty breakfast of rice and beans, I set out with my shovel and pick to dig. Our first task was to clear a large area for the pond. This was my first opportunity to use my brand new machete. Through my internship this summer I not only learned how to swing a machete and develop my Spanish skills, I also heightened my awareness of the environmental crisis occurring all over Central America. I learned about howler monkeys and the endangered tapir alongside with the environmental dilemmas and political issues of Costa Rica. Costa Rica is a beautiful country filled with warm people and budding with animal and plant biodiversity that deserves to be protected.

Julia Mead

Achievements come in different shapes and sizes, and we had quite a few during our time at TFI. We planted trees in the surrounding areas, often spending the whole day up on mountain tops, each time planting between 150-500 trees. It was amazing to see the difference between when we first began planting and our last few excursions. It brought me back to the idea of my own faith in environmentalism. As I dug each hole, it felt pretty unimportant; each hole was only one tree in one pasture. But I realized that the same argument stood for every anti-environmental thing I’ve every done. Only one more car, only one more person eating meat can’t possibly have an impact in the grand scheme of things. But it has to, or else nothing counts. So that one tree should be planted, because that’s how every forest has to start, and how every change begins.

Going to Costa Rica was at times a really challenging experience. I had the experience of living in another country and trying to figure out how to adapt to social customs and cultural differences. I learned so much just by being there and seeing it for myself, which was way more fun than any classroom has ever been. I loved being a part of a program like the Tropical Forestry Initiative that sought to strike a balance between preserving nature and making a living.
The mission of the Washington Center for Internships and Academic Seminars (TWC) is to give college students and post graduates the opportunity to work first hand in a professional job setting, attending lectures led by professionals, and encouraging civic engagement. The Washington Center and internships are located in and surrounding DC.

This summer I was fortunate to be in Washington during a period of environment/energy awareness, with many different bills submitted to Congress focusing on climate change. It was exciting to be in the center of action. As an intern at ENERGY STAR, my main task was to develop research for a presentation on energy efficiency certificates focusing on the different options for the Regional Greenhouse Gas Initiative and how communities were working to incorporate green power with the utility companies. My research investigated the benefits of energy efficiency certificates (EECs), renewable energy certificates (RECs), and carbon offsets as means to accomplishing carbon neutrality.

When the time came for me to give my final presentation to the branch chief, I was able to communicate the importance of changing current consumption though alternate programs like EECs and RECs. It was the best work I have ever done.

The Environmental Protection Agency was a perfect match, and now I have a different perspective on what policy making entails. My experience this summer has left me as a more confident and aware citizen. Prior to this experience I would have never considered myself a leader, but I believe that the work I did and the experiences I’ve had have put me in this role. I haven’t changed my values, but my ability to connect the issues and my communication skills (along with new-found confidence) can help the United States take charge in becoming a global environmental leader. As an environmental policy major, I would like to return to the political arena to work on getting things done.

Internships can offer an invaluable adjunct to research-based learning by allowing the student concrete contexts in which to apply research principles. Whether a student has an internship in a physics lab, a news room, a hospital, or a business office, the experience can provide learning that cannot be replicated in the classroom.

The Boyer Commission On Educating Undergraduates
Intern Partners

CooperRiis
Mill Spring, North Carolina
Intern: Taylor Johnson

This unique healing community provides a comprehensive program close to nature for individuals with mental illness and emotional distress that addresses the needs of their mind, body and spirit.

EARTH University
Guacimo, Costa Rica
Interns: Lauren Bangasser, Amy Woychowski

A unique educational institution, EARTH strives to develop leaders for the 21st century – agents of change who will greatly shape the direction of environmental protection and development in Latin America and the entire global community.

National Audubon Society Seabird Restoration Project
Bremen, Maine
Interns: Delaney Burke, Sarah Pierce

This exemplary seabird restoration program offers students the opportunity to serve as research assistants. They collect data, band birds, educate the public and help maintain six islands off the coast of Maine.

The Nature Conservancy
Long Island Chapter
Cold Spring Harbor, New York
Intern: Nora Purcell

The Nature Conservancy
North Carolina Chapter
Mountains District
Saluda, North Carolina
Intern: Zoe Minderovic

This national organization focuses upon the conservation of threatened species and habitats through the management and purchase of land as well as by working in partnership with other agencies.

North Carolina Coastal Federation
Newport, North Carolina
Intern: Kayleigh Burgess

The Federation protects the coastal environment, culture, and economy through habitat protection and restoration, environmental law and order, and environmental education.

Programme for Belize
Hill Bank Field Station, Belize
Interns: Ronnie Anderson, Kenmei Kato

This organization promotes conservation of the natural heritage of Belize and the wise use of its natural resources.

Smithsonian Environmental Research Center
Edgewater, Maryland
Intern: Ryan Exline

The Center's mission is to advance the stewardship of the biosphere through interdisciplinary research and education.

Tropical Forestry Initiative
Tres Piedras, Costa Rica
Interns: Heather Aziz, Aubrey Delone, Julia Mead

The Tropical Forestry Initiative is developing the knowledge and techniques to restore the vanishing Central American rainforests. Interns work to restore the rainforest and educate children about the environment.

Tom Yawkey Wildlife Center
South Island, South Carolina
Intern: Amy Rowlatt

The Center works to protect and preserve native bird and turtle species, educate the public through guided tours, and encourage research to preserve the refuge's natural resources.

The Washington Center
Washington, DC
Intern: Rachel Buedel

The Washington Center is a nonprofit, nonpartisan educational organization providing internships with the Environmental Protection Agency that introduce young people to public policy and to the people and organizations that shape it.

Where are the Interns now?

There is a biologist at the US Fish and Wildlife Service; a teacher at the Arthur Morgan School; an outdoor education teacher at Walker Creek Ranch; a landscaper with Charlotte Parks and Recreation; a biologist with the National Park Service, Big Bend; a conservationist at Triangle Land Conservancy; a steward at Odyssey Marine Explorations; a volunteer with Student Conservation Association; a conference coordinator at the California Association of Flower Growers; a biological science technician at the National Park Service; a computer designer at Bioquant; the Assistant Superintendent for the Bureau of Land Management; an attorney; an environmental health specialist at the Eaton Corporation; a guide with Iguana Tours; a graduate student at the Rubenstein School of Environmental/Natural Resources; a wildlife biologist with the Idaho Department of Fish and Game; an organic farmer; a teacher at Long Branch Environmental Center; a banker; a team leader with Americorps; a graduate student at Florida International University; an environmental education teacher in Alaska; a teacher at Evergreen Charter School; a carpenter; a loan officer; an animal control officer with Prairie Paws Adoption Center; a financial advisor; a graduate student at James Madison University...
Environmental Leadership Interns 1996–2006

Christine Hamilton, National Audubon Seabird Restoration Project • Keri Parker, National Audubon Seabird Restoration Project • Sunshine Brost, Boyce Thompson Institute • Colleen Rockstroh, Boyce Thompson Institute • Rebecca Patt, Cloud Forest School • Janet Sofer, EARTH University • Hung Dinh, Environmental Leadership Initiative • Yana Gilmore, Great Smoky Mountains Institute at Tremont • Melissa Nicklas, Institute of Marine and Agricultural Research, Inc. • Josh Federman, Long Branch Environmental Education Center • Julia Shaw, The Nature Conservancy of Oklahoma • Stacie Greco, Ocean Arks International • Catherine Harper, National Audubon Seabird Restoration Project • Emily Cost, Sustainable Communities Network • Megan Davies, Tropical Forestry Initiative • Jeff Eisenberg, Tropical Forestry Initiative • Kristin Bogardus, Wildlife Care Center of the Blue Ridge • Colleen Moulin, Wildlife Care Center of the Blue Ridge • Knut Feiker, National Audubon Seabird Restoration Project • Joy Frere, National Audubon Seabird Restoration Project • Galen Elridge, Boyce Thompson Institute • Rachel Reeser, Tropical Forestry Initiative • Dawn Hurley, Wildlife Care Center of the Blue Ridge • Zachary Sanchez, EARTH University • Leigh Wood, Boyce Thompson Institute • Zachary Sanchez, EARTH University • Jenny Rose, Wildlife Care Center of the Blue Ridge • Dacey Mercer, Audubon Seabird Restoration Project • Abigail Deuel, Boyce Thompson Institute • Natalie Klingender, Boyce Thompson Institute • Brianna Melford, EARTH University • Juniper McClellan, Land Stewardship Center • Kristin Zannelli, Merck Forest and Farmland Center • Amy Aminno, The Nature Conservancy • NC Chapter • Ase Bleier, The Nature Conservancy • Elizabeth McCreary, North Carolina Coastal Federation • Barbara Sloss, North Carolina Coastal Federation • Linsay Carroll, Quality Forward • Brandon Pugh, Quebec Labrador Foundation's Atlantic Center for the Environment • Lewis Cassity, Rocky Mountain Institute • Gemma Evans, ELC Environmental Science Summer Program • Kira McBe, ELC Environmental Science Summer Program • Jennifer Schwager, ELC Environmental Science Summer Program • Sheryll McRae, Boyce Thompson Institute • Joel Basset, Discover Life In America • Jeremy Layman, Great Smoky Mountains Institute at Tremont • Jammee Kohen, Smithsonian Environmental Research Center • Lara Lustig, Smithsonian Environmental Research Center • Danna Baxley, Tom Yawkey Wildlife Center • Isabel "Maria" Salazar, Tropical Forestry Initiative • Andrew Steel, Tropical Forestry Initiative • Erin Ackerman, Wildlife Care Center of the Blue Ridge • Sharon Fabel, Wildlife Care Center of the Blue Ridge • Christine Fonse, Wildlife Care Center of the Blue Ridge • Veronique Poghosyan, Sustainability Center • Ayer Smolen, North Carolina Coastal Federation • Tami Christ, The Nature Conservancy • NC Chapter • Michah Fishman, The Nature Conservancy • NC Chapter • Juliana de Frota, The Nature Conservancy • Long Island • Sarah Krueger, North Carolina Coastal Federation • Arlette Rogers, North Carolina Coastal Federation • Juniper McClellan, Programme for Belize • Joy VanDevort-Sneed, Programme for Belize • Sarah Stokes, Rocky Mountain Institute • Shannon West, STS Technologies • Emily Nicar, Tom Yawkey Wildlife Center • Gabriel Allen, Tropical Forestry Initiative • Molly Maland, Tropical Forestry Initiative • Alison Laramee, Tropical Forestry Initiative • Alise O'Neill, Wildlife Care Center of the Blue Ridge • Meg Harper, National Audubon Seabird Restoration Project • Erek Napor, National Audubon Seabird Restoration Project • Susan Dobbertin, Blue Ridge Wildlife Institute • Joseph Neale, Blue Ridge Wildlife Institute • Amber Boles, Boyce Thompson Institute • Rebecca Rudicell, Boyce Thompson Institute • Scott Steinbrueck, Discover Life In America • Thomas Gillfey, Great Smoky Mountain Institute at Tremont • Megan Cadwell, Kerr Center • Rachel Trolley, The Nature Conservancy • NC Chapter • Joy VanDevort-Sneed, The Nature Conservancy • NC Chapter • Anna Halligan, The Nature Conservancy • NC Chapter • Elizabeth Wunker, The Nature Conservancy • Long Island • Laura Mills, Tom Yawkey Wildlife Center • Matthew George, Tropical Forestry Initiative • Ginelle Heller, Tropical Forestry Initiative • Maureen McKenna, Tropical Forestry Initiative • Paul Bailey, National Audubon Seabird Restoration Project • Maryka Lier, National Audubon Seabird Restoration Project • Mark Fields, CooperRiis • Emily Leight, Genesis • Joshua McBe, Genesis • Amanda Davis, Great Smoky Mountain Institute at Tremont • Madeleine Barbee, North Carolina Coastal Federation • Paula Reiha, North Carolina Coastal Federation • Jessica Mosher, Programme Belize • Erin McVey, Programme for Belize • David Tormey, Rocky Mountain Institute • Erin Kiley, Scotties Place • Michael Lawrence, Smithsonian Environmental Research Center • Greer Thomas, The Nature Conservancy on Long Island • Ahliah Toulouse, The Nature Conservancy • NC Chapter • Megan Burns, The Nature Conservancy • NC Chapter • Andrew Phillips, The Washington Center • Megan Bryan, Tom Yawkey Wildlife Center • Valerie Bartell, Tropical Forestry Initiative • Marisa Albert, Tropical Forestry Initiative • Beth Lev Ben Ezra, Tropical Forestry Initiative • Lucas Blass, National Audubon Seabird Restoration Project • Lily Doyle, National Audubon Seabird Restoration Project • Ellie Thomas, Center for Environmental Farming Systems • Chris Metzloff, Cooper Riis • Angela Revaldo, EARTH University • Sarah DeLeiris, Genesis • Terence O'Neill, Great Smoky Mountain Institute at Tremont • Erica Heiler, North Carolina Coastal Federation • Beth Decato, Programme for Belize • Kristin Weissinger, Programme for Belize • Billy Maynard, Rocky Mountain Institute • Ryan Morra, Rocky Mountain Institute • Gabrielle Haynes, Scotties Place • Lumdilla Janda, Scotties Place • Greg Traymar, Environmental Leadership Initiative • Sarah Werner, Smithsonian Environmental Research Center • Rebecca DaVanon, The Nature Conservancy • Long Island • Hannah Banks, The Nature Conservancy • NC Chapter • Jenna Schreiber, The Nature Conservancy • NC Chapter • Lyndsay Math, The Nature Conservancy • Scott Steinbrueck, Discover Life In America • Jeni Martin, National Audubon Seabird Restoration Project • Beth MacLeod, National Audubon Seabird Restoration Project • Ian Martin, National Audubon Seabird Restoration Project • Rachel Fairbanks, Cooper Riis • Lisa Johannaer, Cooper Riis • Lauren Baker, EARTH University • Emily Brigham, Genesis • Hilary Collins, Genesis • Kaitlin Perry, Great Smoky Mountain Institute • Michael Olivo, Student Conservation Association • Arlette Rogers, National Audubon Seabird Restoration Project • Chelsea Maier, Programme for Belize • Manny Monroe, Programme for Belize • Emily Paulsen, Rocky Mountain Institute • Julia York, Smithsonian Environmental Research Center • Louise Erdman, The Nature Conservancy • Long Island • Sadie Adams, The Nature Conservancy • NC Chapter • Christopher Cleveland, The Nature Conservancy • NC Chapter • Joe Kennedy, Tom Yawkey Wildlife Center • Taft Barnett, Tropical Forestry Initiative • Renee Gaudet, Tropical Forestry Initiative • Katherine Rose, Tropical Forestry Initiative
ENVIRONMENTAL LEADERSHIP CENTER
CPO Box 6323
PO Box 9000
Asheville, NC 28815-9000

www.warren-wilson.edu/~elc/

Printed on paper containing materials from well-managed forests and 80% postconsumer fiber. Manufactured chlorine free. Linseed-based inks.