GRO The Forum

Environmental Protection Agency Greater Research Opportunities (GRO) Undergraduate Student Fellowships Newsletter Issue 1, 2004

Fellow Spotlight

Milan Griffin, 2004 GRO Fellow

If not for the encouragement of her advisor at Spelman College, Milan Griffin might not have applied for the EPA Greater Research Opportunities (GRO) Undergraduate Fellowship Program. "He encouraged me to take advantage of this great opportunity to broaden my knowledge in the field of environmental science, gain valuable career experience, and receive funds that financed the last 2 years of my college education." Mentors really do make a difference.

Milan interned with the EPA's Environmental Justice (EJ) program in Region 4, where she was charged with many tasks, including developing a model for best practices in EJ, specifically in the permitting process. This internal guide will help to better incorporate EJ in Region 4 programs and practices. Milan also conducted research to find emergency relief for an EJ community in Delray Beach, FL; compiled census data for the Hispanic Environmental Justice Outreach Campaign; and participated in outreach initiatives.

Given her past experience with internships, Milan was unsure what to expect. "My internships in the past had not been challenging. Beyond typing, faxing, and copying, I was not given projects that required the extensive application of my skills." As she settled into her internship, it became quite clear that this experience was not like the others. "I was given several projects that required me to be resourceful; to apply my skills, abilities, and intellect, and to work independently. I gained so much more than what I expected through this internship. I have received a firm understanding of the inner workings of the EPA. I also gained a first-hand lesson on the processes of a federal agency, programs and developments by the EPA, the progress the EPA has made in achieving environmental protection, and the obstacles that the Agency faces."

Milan believes that the lessons of this experience helped direct her future career and educational goals and gave her a different perspective on ways to achieve environmental protection. "This internship made me realize how vital environmental protection is for all citizens and the urgency there is to protect the environment's health."

Norman Meres: ECO Alum's Environmental Activism Keeps GROing

Despite the fact that Norman Meres' internship ended in 1994, he has remained a part of the Environmental Careers Organization (ECO) family through the Alumni Program. His fellowship took place at the EPA lab in Gulf Breeze, FL, where he explored the biological degradation of jet fuels by bacteria under the guidance of Dr. Peter Chapman. The internship "was a very important factor in my deciding to work in an area of microbiology and molecular biology as it relates to environmental science. The most important things to me were the new techniques that I learned. I originally had a background in chemistry. Through my internship, I was able to develop my skills in microbiology and see how it could be combined with biochemistry in a way that was relevant to environmental science." Norman adds, "My internship experience exceeded my expectations. I expected to work independently under the guidance of an experienced scientist. However, I hadn't realized that I would be learning so many new techniques."

Norman is an adjunct instructor at Northern Virginia Community College in the Environmental and Natural Sciences Division at the Woodbridge campus. He also is working on his doctorate in the Environmental Science and Public Policy

continued on page 2

In this issue

EPA United States Environmental Protection Agency

A Mentoring Profile

contined from page 1

Stan Austin, Branch Chief in the U.S. EPA's Office of Wetlands, Oceans, and Watersheds, has been with the Agency for 20 years. During this time, he has sponsored several EPA Fellows.

Stan's Mentoring Philosophy:
The way Stan sees it, a Fellow usually approaches the internship with an interest in a particular topic and also brings a specific set of skills. He believes that it is the responsibility of the sponsoring Mentor/Project Advisor to mesh these skills with the needs of the sponsoring office. This process is not always straightforward and often requires the Mentor/Project Advisor to be creative. For example, "If a Fellow arrives with an interest in graphic design, I try to develop a project that uses this skill to meet real program needs, such as developing a Web site on restoring wetlands. If I observe, for example, that this intern needs to enhance his or her aptitude with a particular required graphics program, I strive to supplement the Associate's day-to-day work with helpful training." Stan believes that providing training opportunities for Fellows enables them to gain valuable skills that help them excel not only in their internship activities but also in their future career endeavors.

Stan also understands that the internship experience is a mutual growth opportunity for both the Fellow and the sponsor. According to Stan, "The Fellows who have passed through this office have come from a variety of different backgrounds and geographic locations, bringing with them fresh perspectives gained from their academic pursuits. The program has provided my office with a constant flow of new ideas that would not have existed otherwise."

Stan's advice to Fellows is, "Never be idle. Take advantage of your internship experience to build and enhance your skills, and make new contacts by actively pursing new opportunities. Ask if you can contribute to a new project or attend a meeting or training opportunity. If you do not take the initiative, you will not make the most of your ECO experience."

Stan continues to mentor EPA Fellows. This summer, his office sponsored several new interns, including Alexander Moore, a member of the 2003-2004 GRO Fellowship Class.

Department at George Mason University, concentrating in molecular environmental biology. Norman is investigating the causes of disease in American lobsters, applying molecular biology techniques to the environmental field. In addition to his work at the University, Norman is passing on his environmental legacy through his relationship with the Boy Scouts of Herndon, VA, as an assistant Cubmaster. But he wanted to do more.

As a member of the Alumni Network, Norman heard about the ECO Cookie Project Grants and decided to turn an environmental problem into a service project for his local Boy Scouts chapter. Because the lead sinkers and rigs used in fishing are often ingested by and kill migratory waterfowl, he proposed a Fishing Weight Exchange Program in cooperation with the Boy Scouts. Lead sinkers can be replaced with a variety of materials, but bismuth is the preferred, environmentally safe substitute. Unfortunately, bismuth is a more expensive option than lead. Although some states offer government and/or privately sponsored exchanges to trade lead weights for free bismuth replacements, there was no such program in Virginia until Norman's proposal. Thanks to his vision and the recent award of his Cookie Project Grant, he and the Scouts will promote this program through exchange booths at local fishing derbies, popular fishing locations, and sporting goods stores and by giving presentations about why to stop using lead. The project is in the initial planning stages and should begin soon.

For more information about the ECO Cookie Project Grants, see: http://www.eco.org/sponsors/cookieproj.html.

My Environmental Legacy

By Avonelle Rodney, 2004 GRO Fellow

"At first I was hesitant and procrastinated with my application to the GRO Undergraduate Fellowship Program. I thought EPA wouldn't want a sophomore from a small private university. However, my advisor did not let me give in to my doubts. She saw something in me I failed to recognize in myself—potential. I knew I had to do this for the great opportunities that the fellowship offered.

I interned in Washington, DC, at EPA headquarters, with the Green Chemistry program. I worked on a variety of projects, including the Presidential Green Chemistry Challenge Awards and the Green Chemistry Education Program.

At the end of the program, I was given an opportunity to choose a project, and I chose outreach. There are many green chemistry education resources available to college students, teachers, and businesses, so I wanted to design a green chemistry educational game or activity for high school and pre-high school students. I offered a few ideas and participated in meetings with EPA staff and contractors. Now this project is in high gear.

I have a new perspective about chemistry and its impact on the environment and our health. Given the title of my internship program, my initial expectation was that I would be able to expand my chemistry knowledge. Not only did I build on what I already knew, I learned so much more, and most of all I learned about green chemistry. This fall I will be volunteering with Hands On Miami, and I will try to continue educating others and myself about green chemistry and pollution prevention."

If you'd like to learn more about the Presidential Green Chemistry Challenge Awards and the Green Chemistry Education Program, visit http://www.epa.gov/greenchemistry/presgcc.html.

2003-2004 GRO Undergraduate Student Fellowship Recipients—Summer Project Placements

Tesha Boado
California State University, Fresno
Major: Molecular Biology

Tesha interned in San Francisco with EPA Region 9 as a Waste Reduction Team Associate. She worked with the team conducting research, doing outreach, and supporting innovative grant projects on waste reduction, recycling, buying recycled products, and "green" building.

Melody Covington
Norfolk State University
Major: Biology

Melody interned in Atlanta with EPA Region 4 as a Lead-Based Paint Associate. She worked as a member of the lead-based paint team to locate, quantify, and determine the status of all homes owned by the Department of Defense and National Park Service in Region 4.

Millie Gonzalez
University of Puerto Rico, Huacao
Major: Microbiology

Millie interned in Athens, GA, with EPA Region 4 as a Microbiology Lab Associate. She compared the structure of the microbial communities inhabiting the cyanobacterial mats from Cabo Rojo Solar Salterns, Puerto Rico, and determined whether the communities are affected by seasonal changes.

Danielle Goode
North Carolina A&T University
Major: Electronics Technology

Danielle interned in Atlanta with EPA Region 4 as a Class V Data Updates Associate. She reviewed records of field inventories to determine ways to research missing or incorrect information.

Milan Griffin
Spelman College
Major: Political Science

Milan interned in Atlanta with EPA Region 4 as an Environmental Justice Awareness Series Associate. She assisted the Environmental Justice/Community Liaison Staff Office in developing and organizing a series of lectures to raise the awareness of EPA staff and EPA stakeholders regarding environmental justice.

Sarah Jamison
Spelman College
Major: Biology

Sarah interned in Edison, NJ, with EPA Region 2 as a Laboratory Technician Microbiology Associate. She assisted in the biological examination of recreational water to detect, identify, and enumerate bacterial indicator organisms.

Shara Johnson
Alabama A&M University
Major: Natural/Life Sciences

Shara interned in Atlanta with EPA Region 4 as an Enforcement Intern. She participated in the Gulf Enforcement Section, in the Biosolids Work Group. The project focused on the standards for the use or disposal of sewage sludge (biosolids).

Ruth Le'au
University of Hawai'i, Monoa
Major: Biology

Ruth interned in San Francisco with EPA Region 9 as a Policy Associate. She researched corporate ownership and facility history for various carbon regeneration facilities and assisted in reviewing grants concerning community-based participatory research.

Alexander Moore
Howard University
Major: Chemistry

Alexander interned in Washington, DC, at EPA headquarters, as a Policy Associate. He researched the needs of state, tribal, and local governments to improve their ability to protect, manage, and restore wetlands. He also learned how wetland restoration techniques can be improved to better replicate wetland functions and values.

Daberat Perez-Rivera
Universidad Metropolitana
Major: Environmental Science

Daberat interned in Boston with EPA Region 1 as a Beach Program Associate. She performed sanitation surveys for specific watershed draining to beaches, analyzed beach closure data, and assisted with public outreach activities.

Jermaine Perry
North Carolina A&T University
Major: Bioenvironmental Engineering

Jermaine interned in New York with EPA Region 2 as a Brownfields Assistant. He became a part of the team providing assistance to cities, municipalities, and local governments engaged in Brownfields activities.

Avonelle Rodney
Saint Thomas University
Major: Biology

Avonelle interned in Washington, DC, at EPA headquarters, as a Green Chemistry Associate. She participated in the 2004 Presidential Green Chemistry Challenge Awards Ceremony and the 2004 Green Chemistry and Engineering Conference. Avonelle also assisted with outreach efforts and technical analysis.

Ericka Thomas
Norfolk State University
Major: Chemistry

Ericka interned in Atlanta with EPA Region 4 as an Environmental Justice Research Associate. She researched key issues that were used in the regional Environmental Justice Stakeholder Forum. She researched the results of previous stakeholder involvement efforts for input related to environmental justice.

Meredith Titterton
Texas A&M University, Corpus Christi
Major: Biology

Meredith interned in Edison, NJ, with EPA Region 2 as a Helicopter Monitoring Program Associate. She collected water samples from a helicopter and analyzed them for bacteria, phytoplankton, and/or dissolved oxygen. She also monitored the NY/NJ Harbor Complex from a helicopter for floating debris with the potential to affect bathing beaches.

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A Career Tip

Ten Career Skills All Environmental Professionals Need

In 1999, the U.S. Environmental Protection Agency conducted a workforce assessment project and determined that the Agency was well stocked with good engineers and scientists, but needed employees who could bring people together, communicate well with the public, navigate bureaucratic obstacles, and generally do things a little differently. Many employees of environmental agencies and companies have recognized themselves in this list of essential skills. Do you? Take a moment to assess your own competency levels on:

1. **Communication skills (oral and written)**
2. **Collaboration abilities and team orientation**
3. **Customer service orientation (focus on serving an audience's needs)**
4. **Creativity, innovative thinking**
5. **Broad understanding of science**
6. **Analytical ability, critical thinking, and problem-solving**
7. **Work orientation, professionalism, and positive attitude**
8. **Occupation-specific skills and knowledge**
9. **Mastery of information technology, including GIS**
10. **Leadership ability.**

Now is the time to enhance or develop those skills you do not already have.

"Cyah Says"

Several of our Fellows mentioned the importance of their mentors in persuading them to pursue internships with the GRO Fellowship Program. If you have a mentor already, keep in mind how lucky you are that this professional is taking time out of his or her busy schedule to help you. If you don't have a mentor, try to approach any professionals you know through your school or work experience. And remember that you, too, can mentor your peers and those just starting to explore an environmental career. Above all, keep taking chances and making the most of opportunities around you. You'll never know unless you try….