

GRO

The Forum

Environmental Protection Agency Greater Research Opportunities (GRO) Undergraduate Student Fellowships Newsletter Issue 1, 2006

HOW WILL YOU GRO?

Brandon Jones was a GRO Undergraduate Fellow in the summer of 1991 in Anchorage, Alaska. Brandon focuses on the importance of making genuine connections with leaders and peers, helping others, taking risks, and making the most out of new situations.

Why did you apply for the GRO Fellowship Program?

I remember my advisor mentioning that there was an opportunity for this fellowship.

Where did you intern?

What were your responsibilities?

I interned at the EPA Operations Office, where my primary project was gathering data and writing a short paper on using natural and manmade wetlands for wastewater treatment. At the time, the majority of Alaska's rural communities had a lack of sewage treatment systems. Their wastewater moved into streams and rivers, so there was concern by the EPA and other agencies about how the cold Alaskan climate would impact this type of wastewater treatment (i.e., use of wetlands). My research and paper focused on the best ways to utilize natural and manmade wetlands for treatment given those climate conditions.

What school did you go to?

What year did you graduate?

I went to Lincoln University in Pennsylvania, and I graduated in 1991.

What were your expectations? Were those expectations met?

I knew I wanted to do something related to aquatic science, so I looked at all the places that were involved in aquatic-related research. When I saw Alaska was an option for wetland studies, I thought, "When else would I ever get a chance to go to Alaska?"

One of the good things was that once I got there, I was able to visit other agencies to do my research, and meet people and talk with them. A highlight was that there was another ECO intern from Jackson, Mississippi—Phelisa Smith. I really connected with her, and we are still great friends to this day.

The office director in EPA's Anchorage Operations Office presented a special opportunity to me and I did two weeks of field work in Northern Alaska above the Arctic Circle (the north face of the Brooks Range) with a team that was funded by EPA from Corvallis, Oregon. I analyzed airborne toxins that were floating over from Asia. We collected mosses, lichens, fish, and ground squirrels, to be analyzed for environmental contaminants.

I was happy with the overall experience. I was happy to have the chance to go to the Arctic Circle. I think it helped not to have too many specific expectations. I was open to the experience, and because of that, I was open to the opportunities.



What was the most important thing you took away from your internship?

Getting to work in the office that was responsible for coordinating some of the Exxon Valdez cleanup efforts in Prince William Sound was pretty neat. The friendship I made with Phelisa was a great thing, and the chance to go to the Arctic Circle on the two-week field expedition was definitely a highlight.

How did the internship change or develop your perspective on the environment?

I knew the environment was a dynamic system before I went, but I think being there increased my curiosity about it, and I began to really reflect on how much we still don't know about nature.

What advice would you give to future GRO fellowship classes?

Step out of your comfort zone. Be open. Make sure you network and make connections, and keep those connections open. Make connections with the people that you're learning from to broaden your network of contacts. You may need guidance, recommendation letters, and mentoring during the course of your career—constant communication within your network can only help you professionally.

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2005–2006 GRO FELLOW PROFILES

Katherine Buettner

Major: Chemistry with minor in mathematics

College: Lafayette College

Project Advisor: Susan Richardson

Office/Location: EPA, National Exposure Research Laboratory, Ecosystems Research Division/Athens, GA

Project Description: Katherine is participating in a drinking water disinfection by-products (DBPs) study aimed at understanding by-product occurrence and formation in drinking water treated with different disinfectants. This internship will develop her skills in chemical processes, methods and testing. She will also be writing a report summarizing her findings on DBPs.

Gary Chan

Major: Civil Engineering

College: The City College of New York (CUNY)

Project Advisor: Helen Grebe, Regional Coastal Monitoring Coordinator, USEPA Region II, DESA

Office/Location: USEPA Region II, Division of Environmental Science and Assessment/Edison, NJ

Project Description: Gary is working with the New York Bight Water Quality Helicopter Monitoring Program, gathering information that will identify key water quality factors about the waterways around New York Harbor, the beaches of Long Island, and the Jersey shore. Daily surveillance is done for floating debris and oil slicks. Weekly water samples are taken using helicopters and then tested for levels of bacteria (fecal coliform and enterococci), phytoplankton, and dissolved oxygen at the shore and up to nine miles offshore.

Ramya Ambikapathi

Major: Environmental Studies and Biology

College: University of Maryland, Baltimore

Project Advisor: Thomas Pfleeger

Office/Location: US EPA Western Ecology Division/Corvallis, OR

Project Description: Ramya is contributing to research that will be part of a larger project to improve the pesticide registration process under FIFRA. She is developing skills necessary to conduct scientific research in both greenhouse and field experiments. Her research involves planting, growing and harvesting domestic and native plants, taking measurements and recording data. She will also write a report summarizing the findings for publication in scientific journals.

William Hardy

Major: Chemistry with minor in mathematics and biology

College: Jackson State University

Project Advisor: Dr. Carol Farris

Office/Location: Office of Pollution Prevention and Toxics/Washington, D.C.

Project Description: William is working in the OPPT's Green Chemistry Program to help develop and use new chemical products that neither make nor use hazardous chemicals. He is also assisting chemists in analyzing the data contained in a technical database of green chemistry technologies, some of the finest technologies in the green chemistry industry.

Christine Hauther

Major: Microbiology and Molecular Cell Sciences

College: The University of Memphis

Project Advisor: Lidia Watrud

Office/Location: National Health & Environmental Effects Research Laboratory/Corvallis, OR

Project Description: Christine is working with researchers on the Gene Flow Project to develop methods to help determine the environmental safety of genetically modified crops. This internship will help her gain knowledge of the multi-disciplinary methods used in environmental risk assessment.

Information generated by the research will assist Agency efforts to develop science-based regulations and environmental policies.

Rebecca Larzelere

Major: Environmental Studies and Biology

College: SUNY Binghamton

Project Advisor: Kay Ho

Office/Location: Atlantic Ecology Division at Narragansett/Narragansett, RI

Project Description: The Atlantic Ecology Division at Narragansett specializes in understanding, quantifying, and modeling the effects of anthropogenic stressors on coastal ecosystems and the development of methods for assessing the ecological effects of contaminated marine sediments resulting from anthropogenic activities. Rebecca will help develop methods to determine which stressor may be responsible for degradation in marine systems. She will also be interpreting data and writing reports to communicate the findings.

Julie Nicole Kadramas (Renner)

Major: Chemical Engineering with Biochemical Emphasis

College: University of North Dakota

Project Advisor: Stephanie Harris

Office/Location: Region 10 Laboratory/Port Orchard, WA

Project Description: Julie is helping develop analytic techniques in molecular biology at a state-of-the-art laboratory. She will be collecting field samples and doing laboratory work that will help develop Bacterial Source Tracking, a technology to identify non-point sources of pollution.

Juan Gabriel Martinez

Major: Cell Biology

College: Arizona State University West

Project Advisor: Cynthia Peurifoy

Office/Location: Environmental Justice Program Office/Atlanta, GA

Project Description: Gabriel will be helping provide greater opportunities for communities to participate in environmental decision making by developing tools that will be used by Region 4 environmental justice community stakeholders during environmental decision making processes. These tools will help break down technical information into formats that can be easily understood by all and will be available for use by many environmental justice communities to better understand conditions in their community.

Nicole Mosley

Major: Chemistry

College: Jackson State University

Project Advisor: Althea Moses

Office/Location: EPA Region 7 Environmental Justice Program/Kansas City, KS

Project Description: Nicole is working with EPA officials to identify communities most impacted by environmental hazards in Region 7. Through the use of GIS and GPS, as well as through community assessments, she is contributing to the development of schemes that address these communities' concerns.

Immanuel Palugod

Major: Civil and Environmental Engineering

College: Bucknell University

Project Advisor: Alan Hecht

Office/Location: Office of Research and Development; Sustainable Development/Washington, D.C.

Project Description: Immanuel is working to identify tools and expertise within ORD to be included in a Sustainability Tool Box to assist EPA regions, programs, states and local governments in developing sustainable environmental approaches. He will develop an inventory of appropriate efforts, expertise, and contacts, and organize this information in a user-friendly format. His efforts will be essential to go beyond planning a Sustainability Research Strategy to implementing one.

Lydia Sewell

Major: Environmental Biology and Environmental Studies

College: Tulane University

Project Advisor: Robin Biscaia

Office/Location: EPA Region 1/Boston, MA

Project Description: As part of her internship at EPA Region 1, Lydia is contributing to the advancement of the Resource Conservation and Recovery Act (RCRA) through regulatory analysis. She will be introduced to cutting edge policy in the application of environmental law and will be contributing to the analysis of Massachusetts rules that could support federal delegation of RCRA.

Megan Marie Skrip

Major: Biology and Environmental Studies with minor in chemistry

College: The College of New Rochelle

Project Advisor: James Kurtenbach

Office/Location: Division of Environmental Science and Assessment (DESA)/Edison, NJ

Project Description: Megan is a fellow in the Monitoring and Assessment Branch of DESA. As part of EPA's bioassessment program, she is assisting with stream and lake monitoring, specifically sampling benthic macroinvertebrate and fish assemblages to gauge the quality of New Jersey waters.

Gabriel Trejo

Major: Civil Engineering

College: University of Texas, El Paso

Project Advisor: Safa Shirazi

Office/Location: Corvallis Environmental Research Laboratory/Corvallis, OR

Project Description: Gabriel is helping monitor the aquatic environment in streams, including the distribution of pools, riffles, mineral substrates and woody debris. He will learn how to measure velocity distribution in rapids over gravel substrates, in slow pools of water, and in the wake of woody debris and boulders.

Callie Van Koughnet

Major: Marine Science with minor in math

College: University of South Carolina

Project Advisor: Matthew Liebman

Office/Location: EPA Region 1/Boston, MA

Project Description: Callie is performing shoreline surveys on specific watersheds draining to beaches in an effort to protect public health by eliminating sources of bacteria that cause beach closures. She is also analyzing beach monitoring data and assisting with public outreach events at coastal beaches. Her work will directly benefit local communities by protecting public health and providing technical assistance.

Matthew Richard Williams

Major: Biology and Mathematics

College: Clarkson University

Project Advisor: Renee Searfoss

Office/Location: WPD, OCE, NPDES Enforcement Branch/Philadelphia, PA

Project Description: During his time at EPA Region 3, Matt will be helping the EPA manage investigations of polluters and indicate where the most significant environmental benefits are being achieved. This internship will develop his GIS skills and analytical abilities and allow him to apply them to strategic regulatory planning.


Timothy Currie

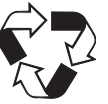
Major: Geography and International Development & Social Change

College: Clark University

Project Advisor: Kelly Huynh

Office/Location: EPA Region 10, Office of Environmental Cleanup/Emergency Response Unit/Seattle, WA

Project Description: Timothy is working on a project to assist EPA in identifying what types of facilities commonly violate RMP regulations. He will produce a report that summarizes his findings and make recommendations supported by his research. 



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CONGRATULATIONS! HOW WILL YOU GRO? *(Continued)*

Two GRO undergraduate alumni have been recommended for funding for EPA graduate fellowships

Dodie Arnold

2001-2002 GRO undergraduate
GRO Graduate Fellowship
B.S. Biology & B.A. Spanish
Meharry Medical College
MSPH Degree Candidate

Megan Mauter

2001-2002 GRO undergraduate
STAR Graduate Fellowship
B.S. of Arts
Yale University,
Ph.D Environmental Engineering

What are you doing now? How did you get there?

Currently, I am a Project Officer in EPA's National Center for Environmental Research (NCER) which is the office that manages EPA's STAR grants program. I manage fellowships and grants. How I arrived at NCER relates to making connections. I was finishing my Ph.D at the University of Delaware – College of Marine Studies, and one of my lab mates, Gina Perovich, went to work for the EPA. I was actively looking for a job and developed a relationship with the human resources administrator at the Delaware Department of Natural Resources. In one conversation about an open position, she asked permission to forward my resume to her relative who worked at the EPA. The relative was the director of the EPA STAR Fellowship Program and worked in the same office as Gina. I interviewed, and got the position.

How did your connection with the environment begin?

I always wanted to be an oceanographer or study something related to the oceans. My grandparents often took me fishing in the lakes and rivers in Ohio when I was growing up, so I believe my love of water and aquatic environments started with them.

From a career perspective, what inspires you?

Helping people inspires me. I think everyone's overall purpose should be to help someone else. When you operate in that vein, you look at your job, life, and family differently. You are more able to use your imagination and creativity. Instead of falling into the everyday frustrations of work, you look at things as a challenge, and you tend to use creativity to turn it into an opportunity to help those in need. 