

OFFICE OF EDUCATION

Educational Partnership Program

& Student Scholarship News

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A Scholar's Point of View

by Melanie Harrison

My motivation for wanting to pursue a career with NOAA may seem a bit unorthodox, because the path I took to get to this stage in my professional and educational career was not the path I chose early on for myself. I grew up in rural Alabama; a typical two parent African American family, from a long line of educators, but an even longer line of farmers. My twin sister and I lived with my great-grandmother; she would take us fishing and swimming in Lake Martin, Alabama and during these



Melanie Harrison preparing to conduct a ¹⁵N tracer addition in riparian wetlands located at Minebank Run, Towson, MD

excursions is where I believe I fell in love with nature--or let's just say I enjoyed playing with the blue gill and crab! However ambiguous the aspiration was back then, I had the ambition of leaving the rural south and becoming a doctor--but one who carried an MD and not a PhD after my name. So, I entered my first year of college with the idea that a career as a doctor was my true calling. Little did I know that this was not how things would turn out; I faint at the site of blood and become nauseous when I smell formaldehyde! Luckily, during my second semester in college I met my then-advisor and now great mentor and friend, Dr Joseph Fail, an ecologist who teaches botany, ecology, evolution, and scientific writing at Johnson C. Smith University. I not only loved each and every course he taught, but respected how passionate and dedicated he was to his students and his

own research interest. He was excruciatingly hard on me, one of the things I appreciated most about him. I admired him for his service to the university, his research as a scientist and his willingness to see me through my career and secretly mold me into a research scientist.



Melanie Harrison

It seems a bit contrived, but during my undergraduate career I could not escape the childhood experiences I had with my great-grandmother; almost all of my undergraduate work had a water research component. It seemed a natural progression for me, and one I thoroughly enjoyed investigating, so I applied for the doctorate program in Marine Estuarine and Environmental Science with a concentration in Environmental Science at the University of Maryland Baltimore County. My current dissertation research focuses on restoration actions in urban watersheds as strategy to reduce nitrogen loading in urban storm water runoff.

In January 2009, I applied and was accepted to NOAA's EPP Graduate Sciences Program (GSP) as a student trainee, working in the National Marine Fisheries Service (NMFS) Southwest Region, Protected Resources Division, located in Santa Rosa, CA. This opportunity has been a life altering experience. With my background in research-based science, this experience gives me an opportunity to use that background to inform policy and guidelines to protect and restore endangered species listed under the Endangered Species Act.

My work at NMFS has taught me about procedures used to identify, list, protect, and restore threatened and en-

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GSP continued from page 1

dangered species. Upon entering the program, I worked on the Southwest California Coast Coho Recovery plan. I was given the opportunity to contribute data analyses, writing, and revisions to the public draft of the Central California Coast Coho Recovery Plan, released to the public on March 18, 2010. At NMFS, I have also had the opportunity to work on public relations and outreach materials related to recovery planning, e.g., drafting memorandum of understandings (MOUs) between water agencies and universities in the San Francisco Bay area and creating brochures and presentations. As a NOAA GSP, I was encouraged by Dick Butler (Santa Rosa area office supervisor, Protected Resources Division) to seek out professional training opportunities within the organization as



Melanie Harrison collecting samples during a storm event from Minebank Run stream, Towson, MD

well as to attend conferences to present my research. As a result, I have received valuable training on the National Environmental Protection Act (NEPA), Endangered Species Section 7 training, and presented at the AGU Fall 2009 Meeting in San Francisco, CA, and the Ecological Society of America conference in August 2010.

The knowledge that I have gained working at NOAA has been extremely beneficial to my current research and completing my dissertation. As a GSP student, the collaborative effort and communication between EPP Staff, my current supervisor Dick Butler and my academic advisor Dr. Peter Groffman has been extremely helpful in making sure that I have all the necessary skills and tools needed to be a successful NOAA employee.

The evolution from research-based

science to policy has been a smooth transition thus far, partly because NOAA's research interest and objectives align with mine, but also because of the comradely, free-thinking intellectual and physical flow of knowledge across NOAA's research areas and synergistic activities with private/public partnerships. I am very appreciative of NOAA's Educational Partnership Program for providing the resources and support necessary for me to be successful in the organization. Once I have completed my doctoral degree, I have no doubt that NOAA's family will continue to support me and to promote the diversity within the agency and the continual dedication to supporting interdisciplinary research programs and projects. My educational background and research experience has taken me far; I look forward upon completion of my doctorate to continuing my work with NOAA!

Publications include:

Harrison, M.D., P.M. Groffman, P.M. Mayer, S.S. Kaushal, T.A. Newcomer. 2011. *Denitrification in Alluvial Wetlands in an Urban Landscape.* "Journal of Environmental Quality." *Melanie's image for the article is on the cover of the journal!*

Sokolova I.M., L. Leamy, M. Harrison, J.D. Oliver. 2005. *Intrapopulation Variation in Vibrio vulnificus Levels in Crassostrea virginica (Gmelin 1971) is Associated with the Host Size but not with Disease Status or Developmental Stability.* "Journal of Shellfish Research" 24: 503-508.

CSC Students in the News

Dr. Leona Charles-BEYA Award

Dr. Leona Charles was awarded the Most Promising Engineer or Scientist -- Industry Award at the Black Engineer of the Year Conference, for her unremitting pursuit of excellence in the field of engineering. Dr. Charles is a payload systems engineer at Northrop Grumman. She earned a bachelor's degree in computer science at the City College of the City University of New



Dr. Leona Charles
CREST Class of 2008

York, and both her master's and doctorate degrees in electrical engineering from the NOAA EPP's Cooperative Remote Sensing Science and Technology Center (CREST) at the

City University of New York.

Dr. Sandra Arismendez Accepts NOAA Job

Harte Research Institute (HRI) Post Doctoral Research Associate, **Dr. Sandra Arismendez**, has accepted a position as an Environmental Scientist with NOAA's Office of Response and Restoration, Assessment and Restoration Division in Baton Rouge, Louisiana. She began work in mid-March as part of a team responsible for implementing the Natural Resource Damage Assessment process related to chemical and oil spills and ship groundings in the southeastern US.

Dr. Arismendez completed the Coastal and Marine System Science PhD Program at Texas A&M University-Corpus Christi (TAMUCC) in May 2010. Her dissertation research entitled, "Land-Water Nutrient Coupling Processes in Central Texas Estuaries" was funded by the NOAA EPP's Environmental Cooperative Science Center (ECSC).



Dr. Sandra Arismendez
ECSC Class of 2010

"It's been a great opportunity for me to study and learn from some of the best scientists in the country here at HRI," she said, adding, "I look forward to the next step in my career, but I will always be grateful for the opportunities provided by HRI and TAMUCC." (Excerpted from the Harte Research Institute News)

Environmental Entrepreneurship Program (EEP): A Student Testimonial, Oxnard College

NOAA EPP's Environmental Entrepreneurship Program (EEP) was established to provide students with training in the application of NOAA sciences in order to foster economic development opportunities. EEP facilitates partnerships among MSIs; various NOAA offices; academic, research, government and business organizations that can help prepare students with appropriate knowledge and skills to exploit environmental tools and technological resources. Over a number of years, EPP has supported 51 EEP projects. See below for an unsolicited success story from a student who benefited greatly from the program.

Hello Dr. Buckley:

I hope all is well with you. I was emailing to send you an update on where I am currently in the world. I've been all over the place and I honestly have the marine studies program to thank. I was accepted into the oceanography program at Hawaii Pacific University in 2008. I quickly fell in love with the islands and knew that this was where I wanted to end up. I completed a marine mammal training internship at Dolphin Quest Hawaii on the Big Island and spent 4



Bottlenose Dolphins

months training Atlantic Bottlenose Dolphins. After my internship was completed, I decided not to spend the money on going back to a private school, so I finished my schooling at Animal Behavior College and graduated with my Veterinary Technician license. I completed an externship at a vet office this past summer. Between random cruise ship waitress jobs and retail stints, I wound up getting hired at the Aquarium of the Bay in San Francisco. I was doing part-time education, educating the public about marine life and the San Francisco water-

shed. Suddenly, all of my marine studies classes came flooding back to me. It was like a deep dark treasure chest of marine knowledge and experiences that I was pulling out from the corners of my mind. I remember having people ask me questions from, "What fish is that?" to "What adaptations do echinoderms have?" And I was able to answer them all! I told my



Sea Stars; Phylum Echinoderm

mom how great it felt to feel like all the years of hard work and schooling were FINALLY paying off!

As of recently, I left my position at Aquarium of the Bay, and got hired full-time at Sea Life Park Hawaii. I am doing the same thing, education, but a lot more intense! I'm in charge of coordinating education and community outreach programs for marine science, coordinating volunteers in the Seabird and Education department, and coming up with new curriculum to teach k-12 graders on marine science and conservation.

I honestly think that all of the education I received at Oxnard College has gotten me to where I am today. People always refer back to my resume and ask me questions about that program. They are so impressed that a community college is able to offer those kinds of achievements and certificates. The involvement with NOAA and the research projects has, I think, definitely made me stand out from the competition (which there is a lot of in marine industry!). I can't stress enough how grateful I am for all the experiences I had at Oxnard College and the opportunities that have arisen from completing the Marine Studies programs. You guys, the professors, are definitely what make a difference. Your passion for what you are teaching will forever be imprinted on me. I hope that now that I am teaching children about marine science, I can

make as much of an impact on them as you did on me. Thank you again for everything, and if you ever stop by Hawaii...please come say hi!

Brianna Saylor

Congressman James E. Clyburn Addresses Black History Month for NCCOS Laboratories

Representative James Clyburn toured Hollings Marine Laboratory (HML), presented a talk for Black History Month, and met with People's Committee members on February 3 in Charleston, SC. He spoke about diversity, civility, history, and African American scientists before an audience drawn from the Fort Johnson Marine Resources Campus, which includes HML, the Center for Coastal Environmental Health and Biomolecular Research and the National Institute of Standards and Technology. The Congressman represents the Sixth Con-



Pictured: Dr. Susan White, HML Director; Anne Blair, HML People's Committee Rep.; Rep. James Clyburn; Dr. Natasha Henry, CCEHBR People's Committee Rep.; Dr. Geoff Scott, CCEHBR Director

gressional District of South Carolina and serves as the Assistant Democratic Leader in the 112th Congress. NOAA's National Center for Coastal Ocean Sciences (NCCOS) People's Committee (a group formed to foster a welcoming, productive and diverse work life environment throughout NCCOS line offices) representatives Anne Blaire and **GSP Alum Natasha D. Henry**—also a graduate of the **Environmental Cooperative Science Center**—organized this event as one of their activities to enhance awareness and understanding of diversity.

Cooperative Science Center News

NOAA ISETCSC Day

NOAA Interdisciplinary Scientific Environmental Technology Cooperative Science Center (ISETCSC) held its third annual "ISETCSC Day" on February 11, 2011, at North Carolina Agricultural & Technical University (NCA&T). With more than 70 high school students, over 40 undergraduate and graduate students, at least 15 ISETCSC faculty and a number of university guest faculty, staff, and administrators, ISETCSC Day incorporated a variety of activities.

The day started with laboratory tours conducted by NCA&T students. Guests traveled to three laboratories where students described their research and use of the laboratory equipment, as well as their future plans. After the laboratory tour, some of the undergraduate and graduate students presented their work at a poster session. In a parallel session, the high school students from four high schools were provided with hands-on experience in earth and atmospheric sciences. These activities were followed by a career panel session with scientists and managers from NOAA, academia, and private industry.

Dr. Solomon Bililign, ISETCSC Center Director, highlighted the national impact of ISETCSC on students and workforce development and Mr. Craig McLean, Acting Assistant Administrator for NOAA's Office of Oceanic and Atmospheric Research, keynote speaker, discussed the proposed NOAA Climate Service. A research symposium chaired by ISETCSC Distinguished Scientist, Dr. Yuh-Lang Lin, and comprised of scientists and professors from NOAA, academia, and private industry presented a range of topics addressing science and the communication of science to the public..



High school students seeking scavenger hunt clues at poster session



High school students learning about Magic Planet

Scholar News and Activities

Dr. April Croxton is "Nifty"

The "Nifty Fifty (*times 2*)" are a group of one hundred noted science and engineering professionals selected to fan out across the Washington, DC area during the 2011-2012 school year to speak about their work and careers at various middle and high schools. Each year the Festival selects an elite group of science professionals—recognized in their field and passionate about what they do—who will inspire the next generation.



April Croxton
GSP Class of 2003

The Expo is the nation's largest celebration of all things science & engineering and features over 1500 hands-on activities and over 75 performances on multiple stages. The 2010 Festival attracted over 500,000 people of all ages and had strong support from the White House and Congress.

Dr. April Croxton, formerly an **EPP Graduate Sciences Program (GSP)** student, was selected as one of the "Nifty Fifty (*times 2*)." Dr. Croxton completed her PhD at Florida A&M University in December 2008, supported by the **Environmental Cooperative Science Center** and is currently a fisheries biologist for NOAA's Fisheries Service. She was introduced to NOAA via her participation in the EPP-sponsored NOAA Environmental Cooperative Sciences Center. Dr. Croxton advises students that, "Whatever career you decide to follow, find a profession you feel *really* passionate about! Sometimes as a scientist I work 13-14 hours day, but because I *love* what I do, including being outside near the ocean on a bright, sunny day with my research, it really does not feel like work. Find what you are passionate about and set the necessary goals to get there."

Charles Doxley, BEYA Leader

Charles Doxley, formerly an **EPP Undergraduate Scholar** (2004-2006), and now a scientist at the National Aeronautics and Space Administration (NASA) was recognized on February 11, 2011 as a Modern Day Technology Leader. During the 25th annual Black Engineer of the Year (BEYA) Science, Technology, Engineering and Math Global Competitiveness Conference, Mr. Doxley's accomplishments were formally acknowledged. Modern-Day Technology Leaders are men and women who demonstrate outstanding performance in their fields, and who can be expected to shape the future course of engineering, science and technology.



Charles Doxley receiving his BEYA award

eration of scientists and engineers with school programs and nationwide contests throughout the school year and a final Expo in Washington, DC on April 27-29, 2012.

Embracing our Traditions of Partnership

February 18-19, 2011 was a historic occasion at Florida A&M University (FAMU) as a cross-section of environmentalists from various sectors including the government, academia, non-profit sector and community convened on campus to attend the "Embracing Our Traditions of Partnership" Summit. With more than 150 attendees present, including students from the **Environmental Cooperative Science Center (ECSC)**, the Summit had the right mix of people to make connections on issues pertaining to sustainable agriculture and local food access. **Dr. Michael Abazinge, Director of ECSC** took part in a panel discussion on sustainability. He highlighted NOAA's mission in marine and coastal ecosystem management, including the role that ECSC faculty and students play in performing research critical to the management of coastal and marine resources. **Ariana Marshall**, ECSC Environmental Science PhD student helped organize the summit, while other Center students volunteered to ensure that the summit ran smoothly.

The 2-day Summit, sponsored by the Southeastern Green Network (SoGreen Network) connected a variety of peo-



Raising hands for sustainability!

ple from a wide-range of fields in an effort to collectively frame an agenda that addresses sustainable agriculture and 1890 Land Grant institutions while re-connecting the resources of these universities for limited resource farmers—a majority of whom are African-American.

A milestone event during the Summit

was the historic signing of a Memorandum of Understanding (MOU) between the United States Environmental Protection Agency (EPA) and Florida A&M University. The MOU signing highlighted the following achievements:

- Florida A&M University entered into two agreements with EPA focused on green initiatives.



Organic Farming Certification Class

- The first agreement committed EPA and FAMU to cooperate in addressing environmental issues ranging from energy policy and sustainability to food security, health disparities, environmental justice and children's health. FAMU is the fourteenth university to join the agency's Collegiate Sustainability Initiative and, as part of the agreement, EPA will work with FAMU to help green the university's campus and make students aware of internships and career opportunities in the environmental field.

- The second agreement signed between FAMU, EPA and the Florida Department of Environmental Protection designated the university as the first Center of Excellence for Watershed Management in Florida.

The energy, excitement and synergy of summit attendees resonated throughout the course of the Summit. "This was a great start," said Cynthia Hayes, the Executive Director of the Southeastern Green Network (SoGreen Network) and the convener of the Summit. "We managed to pull together a number of experts who aren't usually in the same room together and created a forum for them to meet and exchange ideas."

FAMU High School Ocean Science Bowl Team

Florida A&M University's **Environmental Cooperative Science Center (ECSC)** High School Ocean Science Bowl Team competed at the Roseate Spoonbill Bowl, the regional National Ocean Science Bowl (NOSB) at the University of South Florida's College of Marine Science in St. Petersburg, Florida on March 5, 2011.

The ECSC team is young (comprised of 2 sophomores, 1 junior, 1 senior), and eagerly competed against more seasoned teams. While ECSC did not take home a trophy this year, they exhibited passionate sportsmanship and determination, all qualities of a winning team. Their spirit suggests they will be highly competitive at next year's Spoonbill Bowl.

The team's next competition will be April 24, 2011 at The National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE) Conference in Houston, Texas. The ECSC Science Bowl team is coached by FAMU's Environment Science PhD students Ariana Marshall and Zakiya Hoyett. The team was chaperoned by Linda Miller (ECSC Program Coordinator) and Willie Stubbs (ESI Health & Safety Coordinator).

ECSC 2010-2011 High School Ocean Bowl Team members:

*Samuel Ichite (12th Grade), Patrick Holmes (11th Grade), Vivek Soma-sundaram (10th Grade), David Brown (10th Grade). **Alternate Members:** Anthony Medehue (12th Grade), Emmanuel Ichite (11th Grade), Allen Colston (9th Grade)*

Upcoming Events or Opportunities of Interest

MAY 2011

5/19/2011

LMRCSC Science Meeting - IMET - Baltimore, MD

5/26/2011 - 5/28/2011

NCAS Science Team Meeting - La Parguera, Puerto Rico

5/31/2011 - 6/3/2011

NOAA Student Scholars Orientation Training Program - Silver Spring, MD

JUNE 2011

6/5/2011 - 6/25/2011

FAMU ESI High School Summer Camp - Tallahassee, FL

6/5/2011 - 7/29/2011

NCAS Undergraduate Summer Internship Program

6/20/2011 - 6/24/2011

NCAS – Jackson State University High School Weather Camp - Jackson, MS

6/26/2011 - 7/02/2011

NCAS – University of Texas El Paso Middle School Weather Camp - El Paso, TX

JULY 2011

7/2/2011

NCAS – Howard University Day

7/10/2011 – 07/16/2011

NCAS - University of Puerto Rico Weather Camp - La Parguera Puerto Rico

7/10/2011 – 07/23/2011

NCAS - Howard University High School Weather Camp – Washington, DC

7/25/2011 - 7/29/2011

NCAS - Howard University Middle School Weather Camp – Washington, DC

7/29/2011

NCAS - Howard University Summer Colloquium – Washington, DC

AUGUST 2011

8/1/2011 - 8/4/2011

NOAA Scholars Final Presentation Week - Silver Spring, MD

8/1/2011 - 8/5/2011

NCAS - Howard University Middle School Weather Camp – Washington, DC

TBD

NESDIS/CoRP Symposium—Tentatively at the Cooperative Institute for Climates and Satellites, NC

SEPTEMBER 2011

9/4/2011 - 9/8/2011

AFS Annual Meeting, Seattle, WA

9/7/2011 - 9/9/2011

OEDSS Off-site Program Meeting



The EPP Story Updated

Established in 2001, the Educational Partnership Program (EPP) involves a strong network of education and training programs created to sustain the National Oceanic and Atmospheric Administration's (NOAA) mission and enhance its capabilities in the 21st century. The EPP is part of NOAA's effort to promote environmental literacy and to develop a future science, technology, and engineering workforce, with an emphasis on increasing participation from underrepresented communities, in disciplines critical to NOAA's mission. Since its inception, the program has supported 1490 undergraduate, graduate and PhD students in NOAA- relevant areas of study. As a result of EPP funding, mentoring and training activities, we impact national graduation rates of students in science and engineering fields. In addition to student achievement, academic institutions participating in these NOAA sponsored programs are also witnessing capacity-building transformations evidenced by new academic programs, revised curricula, enhanced research capacity and more meaningful partnerships with NOAA scientists, centers and institutes. These outcomes clearly demonstrate the breadth and significance of the contributions that EPP participants are making in support of NOAA's mission, and to their institutional objectives.

In our last issue, we featured our Acting Director, Dr. Audrey Trotman. In this issue, we thought we would take advantage of our revised newsletter delivery format to acquaint our readers with the rest of the EPP staff. Below you'll find a list of staff and their responsibilities, as well as biographies of our 3 newest team members!

EPP Staff

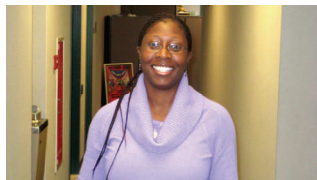
Guy Angouma, Systems Analyst
Victoria Dancy, Program Specialist, Hollings Scholarship Program
Elvis Efamba, IT Specialist
Ellen Gordon, Newsletter Editor and Environmental Entrepreneurship Program Analyst
Chantell Haskins, Program Manager, Student Scholarships
Meka Laster, Program Planning Specialist
Milton Muldrow, Program Manager, Graduate Scholarships

Osaretin Obaseki, IT Specialist
Sandra Sarvis, Program Specialist, Undergraduate Scholarship Program
Audrey Trotman, Acting Director, CSC Program Manager
Sabrina Tucker, Administrative Assistant
Belinda Vann-Nelson, Administrative Officer

EPP Gains Three New Staffers!

Belinda M. Vann-Nelson is the Administrative Officer for the Office of Education/Educational Partnership Program in Silver Spring, Maryland. She has responsibilities in human resource related matters and budget issues.

Prior to EPP, Belinda worked as a Program Analyst for the National Weather Service (NWS). During her years at NWS, she worked in the budget and human resources area while she pursued her Bachelor's Degree in Finance and Economics. In 2009, Belinda completed her Master's Degree in Financial Manage-



Belinda Vann-Nelson

ment and Information Systems from the University of Maryland University College. This year Belinda will begin pursuing her Doctorate in Behavioral Finance.

Milton Muldrow is the new Program Manager for EPP's Graduate Sciences Program as well as the Dr. Nancy Foster Scholarship Program. He will also aid in the management of the Cooperative Science Centers.

He spent the last four years working at the National Science Foundation (NSF), where his duties included analyzing biological sciences research programs and directorates, as well as conducting science outreach. Prior to joining NSF, he was the Education Director of the Pigeon Key Foundation in Florida Keys, Florida. In that position he managed a program delivering informal science education experiences to middle school, high school and college students. Milton has also served as an adjunct professor at

local colleges over the last 3+ years. He received his Bachelor's Degree in Biology



Milton Muldrow

from St. Francis University and his Master's Degree in Biology from University of Missouri St. Louis. He's truly excited to join NOAA's Office of Education and is looking forward to serving the many students involved in its programs.

Guy S. Angouma is the Systems Analyst for EPP. He analyzes, designs, develops and maintains systems applications for OEd use in tracking all students in the EPP funded programs.

Before joining EPP, Guy was employed in the private sector. He worked for Westover Consultants, Inc. for almost two years as a Software Engineer. During his tenure, he developed and successfully implemented a comprehensive and secured web-based conference management system. Guy also spent two years with Securenet Payment Systems as an Application Developer. His duties included maintaining a cutting-edge financial payment processing system, troubleshooting errors to prevent transaction



Guy Angouma

failures & customizing each merchant's secure web page. At EagleForce Associates, Inc., he worked for one year with a team that designed, implemented, and maintained complex databases that support integrated enterprise knowledge discovery and information management. Guy holds a Master's Degree in Computer Science and a Master's Degree in Engineering Management from The Catholic University of America.

Guy plans to teach one day.