OFFICE OF EDUCATION

Educational Partnership Program

& Student Scholarship News

Volume 3 Issue 3 August 2009

www.epp.noaa.gov

ISETCSC Scientist a Member of Nobel Peace Prize-Winning IPCC

Dr. Fredrick Semazzi is a professor in the Department of Marine, Earth and Atmospheric Sciences at North Carolina State University, and leader of one of the three priority thrusts at the NOAA Interdisciplinary Scientific Environmental Technology Cooperative Science Center (ISETCSC). For his substantial contributions to the work of the Intergovernmental Panel on Climate Change (IPCC), he is a member of the group that received the Nobel Peace Prize for seminal work on climate change. Dr. Semazzi's research focus at ISETCSC is in climate modeling and the development of atmospheric numerical models. Over the last four years, he has been directing the development of a nonhydrostatic semi-Lagrangian global atmospheric prediction model. He collaborates on a wide spectrum of climate studies, including development of seasonal climate prediction capability for tropical regions, modeling of the Sahelian climate and the role of bottom orography on climate. *Information and photo courtesy of N.C. State University*

EPP Completes Evaluations of Cooperative Science Centers

In compliance with the America Competes Act, NOAA EPP conducted program evaluations its five Cooperative Science Centers (CSCs). The evaluations, conducted in the third year of the five-year grant awards, consisted of a formal review of the CSC's education, scientific and administrative components. Dr. Meka Laster served as the EPP CSC Evaluation Coordinator. The evaluations took place between February and April, 2009. Each evaluation team consisted of five members, both within and external to NOAA, who are experts in education, science and program administration. At each evaluation, the NOAA Line Office technical monitors, chairs of CSC advisory boards and EPP representatives participated as observers. *Continued on Page 8*

2009 Student Scholar Orientation

This year's recipients of NOAA scholarships gathered in NOAA's Science Center in Silver Spring during a four-day scholar training program designed to educate the students about the agency's mission, areas of expertise and research activities. More than 150 graduate and undergraduate students from 21 states attended NOAA's Office of Education-sponsored Student Scholarship Orientation Training Program in Silver Spring at the end of May.

The program familiarizes the scholars with NOAA, its line offices and staff to ensure that they obtain meaningful research opportunities during their internship experiences. At the orientation session, the scholars had the chance to meet with

Continued on Page 10

EEP Profile: University of Alaska Fairbanks , Bristol Bay Campus

A High School Pipeline Project
March 1, 2005-February 28, 2009

Sustaining healthy ecosystems is the goal of the EEP funded High School Pipeline project entitled "Environmental Studies and Baseline Data: Evaluating Potential Effects of the Pebble Gold-Copper Mining project." The purpose of this project was to provide a bridge from high school to university science programs and to support students from Bristol Bay's rural and indigenous communities. The students have benefited from practical experience in ongoing local research. Important environmental science issues surround the development of the proposed Pebble Gold-Copper Project. If approved, this large-scale mining operation will consist of an open pit mine, processing facilities, tailing impoundments, an extensive transportation system and a port facility. The pipeline project concentrated on students living in two of the most prolific anadromous watersheds in the world, the Nushagak-Mulchatna and the Kvichak. These watersheds are in pristine condition and their river systems support enormous runs of four species of wild Pacific salmon stocks. Local residents depend on salmon harvests for subsistence and commercial gain. A critical focus of this EEP pipeline project was the development of local environmental and socioeconomic expertise, both to prepare Alaskans for environmental jobs (i.e., baseline studies and monitoring programs) as well as to ensure that local expertise exists to understand potential impacts of the proposed mine.

As a direct result of EEP funding from NOAA, this pipeline project helped to increase math and science course enrollment by high school students, e.g., in biology, calculus, biochemistry, environmental science, oceanography and earth science classes. The University of Alaska Fairbanks, Bristol Bay Campus (UAF-BBC) campus was able to create more opportunities for students for training, internships, research and academic credit by offering 27 new courses. Many of these courses support the proposed university Certificate in Environmental Studies. Another accomplishment has been increased training for local community residents interested in employment in environmental fields or a career associated with resource development.

The UAF-BBC has made excellent progress in bringing entrepreneurial opportunities to the communities in Bristol Bay and to high school students, including value-added fish products, learning about making traditional crafts, marketing products, bio-diesel fuel production from fish and vegetable oils and electric car conversion.

Student are also benefiting from the establishment of a partnership with NOAA's new Ted Stevens Marine Research Institute in Auke Bay, which allows them extensive use of lab space, equipment and opportunities to work with NOAA scientists. With the help of EPP funding, a strong partnership has also developed with the Bristol Bay Native Association and its Tribal Environment program. Forty-five environmental coordinator and assistants positions exist in the region, and there is a strong connection between environmental training and employability in those positions.

EEP Profile Update: Oxnard College

An Environmental Demonstration Project

The fall, 2008 issue of this newsletter reported on Oxnard College's environmental demonstration project in White Abalone restoration. Activities under that award were partially responsible for development of a successful Hispanic Serving Institutions Program grant application last year. That National Science Foundation grant of 2.4 million dollars was awarded in October, and will help to increase the number of Hispanic and low-income students enrolled and transferring into Science, Technology, Engineering, and Mathematics. The focus of the award is development of an Associate degree in Coastal Resource Management (CRM) that will be articulated with local university Bachelor degree programs in environmental science. The CRM program will be an expansion of the current Marine Studies Program in depth of course requirements and will include a certificate option.

EPP's Environmental Entrepreneurship Program (EEP) was established with the goal of providing students with training in the application of NOAA sciences in order to foster economic development opportunities. EEP projects help prepare students with appropriate knowledge and skills to exploit environmental tools and technological resources. Projects fall into one of two categories: Environmental Demonstration projects are geared toward engaging students and faculty at Minority Serving Institutions in collaborative, field based learning experiences, while High School Pipeline projects entrain a "pipeline" of high school students to facilitate their understanding concepts of NOAA-related sciences and social sciences.

To learn more about the Environmental Entrepreneurship Program, please visit the EPP website at:

http://epp.noaa.gov/eep_index_page.html

NOAA Mentor Profile: Dr. Pedro Restrepo

Dr. Pedro Restrepo, National Weather Service, Office of Hydrologic Development

Mention the National Weather Service (NWS) and the phrase that likely comes to mind is "weather forecasting." But NWS does more than weather; it is also responsible for forecasting floods and droughts. When state emergency response teams are coping with ice breaks in the Sheyenne River or major floods on the Red River, they turn to the NWS Hydrologic Services Program (HSP) for information on what to expect. HSP has the experts who forecast the water levels on rivers and streams, helping riverside towns determine how high to stack sandbags that can protect people and property. When the NWS issues a flood watch or warning, that's the Hydrologic Services Program at work. The HSP includes the 13 River Forecast Centers and the 122 Weather Forecast Offices, who use models developed by the NWS Office of Hydrologic Development (OHD) and other NOAA laboratories.

Dr. Pedro Restrepo, Senior Scientist for special projects in OHD is enthusiastic about opportunities to work with students. Before coming to NOAA, he taught at the University level, and found he really enjoyed helping students who entered his classroom with little understanding of the subject matter become proficient on the topic. Dr. Restrepo received his Bachelor's in civil engineering from the National University of Colombia in South America, and his Master's and Ph.D. degrees from the Massachusetts Institute of Technology (MIT). Although he began his engineering studies expecting to specialize in structures, a job assisting a hydrologist helped him realize that working with water was much more fun than working with structures! As a result, his graduate degrees are in hydrology and water resources. Employed for many years as a private consultant, Dr. Restrepo also spent four years at the University of Colorado, in Boulder. Though primarily a research faculty, there were opportunities to teach, which he eagerly sought.

OHD works collaboratively to develop the techniques and models used to make hydrologic forecasts. "We share our work, and sometimes we work jointly on devising a tool or model. The River Forecast Centers and Weather Forecast Offices, as well as our remote sensing center are all important partners in our hydrologic forecasting efforts," said Dr. Restrepo. As water becomes scarcer, and populations continue to increase in arid areas, knowing what quantities of water exist is vital. Estimating the quality of the water is also growing in importance. OHD, in collaboration with partner agencies such as the US Geological Survey (USGS) and the Environmental Protection Agency (EPA), is working to develop new modeling technology to predict water quality. An ongoing pilot project in the Great Lakes region designed to model E. coli contamination will enhance health warnings about beaches. Another pilot project in Alaska is aimed at forecasting water temperatures, an important component of water quality.

OHD has been very supportive of NOAA student scholarship recipients. From Gary Carter (Director of OHD) to Geoff Bonnin (Branch Chief) to the various group leaders, all enjoy working with the students. They have found the scholars to be very capable and quite eager to work. There's good reason why they were selected from the many applicants who competed for the scholarships. OHD tries to make use of as many student scholars as they can, having had up to 4 or 5 per summer. Asked what advice he would offer would-be mentors, Dr. Restrepo urges those who take on interns to "challenge them." His office has undergraduate students working on GIS applications, as well as assisting with river observations and calibrations of models. The students do research side-by-side with the scientists. OHD has had students co-author papers and has provided them opportunities to co-present their results at conferences. It is important, however, to know what to expect from the students; an undergraduate just completing his or her sophomore year isn't going to be at the same level as a graduate student. "These kids are bright and eager; just challenge them and they will rise to the challenge. A personal touch is also important." He attributes the latter lesson as one learned from his faculty advisor when he came to this country for his graduate degree. Some of the student interns are from small towns, and can find the NOAA environs a daunting change. Dr. Restrepo has taken them out to lunch on a regular schedule, even invited them to his house to meet his wife and children. "Make sure the students feel comfortable with you. Treat them as peers, as colleagues. Once they see that you respect them professionally and personally, they will feel more comfortable working in this big environment we call NOAA."

Continued on Page 5

Cooperative Science Center Profile NOAA's Living Marine Resources Cooperative Science Center at the University of Maryland Eastern Shore (LMRCSC)

A significant proportion of the world population depends on fisheries resources for high quality protein and for economic well-being. As the world population increases, the demand for fisheries resources will continue to grow. With many fisheries already overexploited, and catches decreasing, we must improve our fisheries management practices on an ecosystem-wide basis. This effort requires marine scientists with expertise in a range of areas to accurately assess the health of the resources, improve our understanding of how to enhance essential fish habitat, boost aquaculture in an environmentally safe manner and increase our understanding of the influence of climatic variation on marine ecosystems.

The Living Marine Resources Science Center (LMRCSC), established in 2001, is committed to collaborative research projects that promote the mission of NOAA Fisheries i.e., *stewardship of living marine resources through science -based conservation and management and the promotion of healthy ecosystems*. The Center is also well-positioned to assist NOAA efforts to develop a future science and technology workforce, particularly from underrepresented communities, in disciplines critical to NOAA's mission. LMRCSC's goal is to augment academic program capacities of the Center and to generate a pool of scholars entering the field of marine sciences and fisheries. The 6 partners of this CSC include the lead institution, University of Maryland Eastern Shore (UMES), Delaware State University, Hampton University, Savannah State University, University of Maryland Biotechnology Institute Center of Marine Biotechnology and the University of Miami Rosenstiel School of Marine and Atmospheric Science. The LMRCSC is connected via a network of videoconferencing units, collectively known as the Virtual Campus, enabling the partner institutions to share instruction, foster research collaboration, provide seminars by renowned scientists to students across the Center and allowing scientists from NOAA and elsewhere to serve on graduate student committees.

Dr. Andrea Johnson instructs middle school teachers in the use of the spectrophotometer for nutrient analysis

To enhance the practical education of students in the marine sciences, faculty-directed research funded by LMRCSC involves both graduate and undergraduate students as active research participants. Students participate in research projects at their home institutions, NOAA laboratories, and at partner institutions. These efforts provide opportunities for students to network with and gain experience from outstanding fisheries scientists. Students benefit from their participation in the projects through hands-on research experience, through completion of theses or dissertations in partial fulfillment of their degree requirements, through financial support in the form of stipends and scholarships, and through travel awards to attend conferences.

Each summer, LMRCSC sponsors an intensive course in Fisheries Stock Assessment offered at UMES. Collaboratively created and instructed by a team of LMRCSC and NOAA scientists, this month long course introduces students to NOAA Fisheries mathematical models for sustainable management of marine fish stocks. The increasing demands placed on fisheries resources are accelerating the need for expertise in stock assessment.

In a brand new venture, the Center is contributing to the activities of a consortium of Woods Hole institutions Partnership Education Program (PEP) to train 12-15 students in ocean and environmental sciences with emphasis on global climate change. Launched this summer, the program consists of a four week course in the seaside village of Woods Hole, Massachusetts, followed by 6-8 week research projects. Participants are also participating in seminars, workshops, a day-long at-sea experience, field trips, informal interviews and occasional lectures at the participating institutions. Students will receive four hours of credit through UMES, tuition support, plus a stipend, room and board and a travel allowance. PEP is intended to provide students with an entry into the Woods Hole science community.

LMRCSC student interns pose with their mentors for a group photo after presenting their summer research

LMRCSC conducts K-12 educational activities that collectively have reached more than 2000 students. In addition to classroom visits by faculty and students, the Center has several initiatives to stimulate interest in marine science among students in elementary, middle and high schools. The Savannah State University Marine Science Camp, available to students in grades K-12, uses the Ocean Literacy and Essential Concepts and NOS Discovery Kits as the core curriculum, incorporating features and animals characteristic of coastal Georgia. Lessons are tailored to the specific age group. A partnership between UMES and several state and

Continued on Page 5

LMRCSC profile, continued from Page 4

UMES students Jhamyllia Rice and Nick Clemens analyze data aboard the R/V Albatross IV

Federal agencies, the Upward Bound Marine and Estuarine Science Program offers lessons in water quality, plankton ecology, fisheries science and management, barrier island ecology and other topics for underrepresented minority high school students from 3 Maryland counties. At the University of Miami, the South Florida Student Shark Program provides practical, hands-on marine science field and lab activities for high school students, with special opportunities made available for underrepresented students. The SciTech Program at the Center of Marine Biotechnology provides teachers and students in grades 6 through 12 with a unique hands-on experience in the field of marine science and biotechnology.

The LMRCSC at UMES has recently been funded by NSF to serve as a site for Research Experience for Undergraduates (REU) in Marine and Estuarine Science. Eight students (rising sophomores) recruited from various institutions are conducting research for 10 weeks with scientists at UMES this summer. Students participate in seminars and workshops to teach them how to design experiments, collect and analyze data and effectively present their results orally, in poster form and in writing. The students also go on field trips to familiarize themselves with the environment as well as the conservation and restoration projects in the Delmarva Peninsula. The program will help prepare students for graduate studies in marine and estuarine sciences.

Dr. Pedro Restrepo, continued from Page 3

OHD also seeks to recruit students in other ways. Staffers give presentations to classes at universities whenever opportunities arise. When Dr. Restrepo is visiting river forecast centers or giving a presentation at a USGS office, he tries to arrange to speak with students at nearby colleges, attempting to build their enthusiasm for NOAA careers by showing them what a difference OHD makes in people's lives. He's found that students love learning real-world applications for their academic subjects. OHD scientists may sit on a student's dissertation committee, or even partially fund the dissertation research, helping influence it to benefit the office's forecasting efforts. It's an ad hoc effort, but Director Gary Carter definitely encourages working with students. Dr. Restrepo also sits on the external Science Advisory Board for NOAA's Cooperative Remote Sensing Science and Technology Center, located at the City College of the City University of New York, and has been pleased to see that the students emerging from that collaborative effort just keep getting better and better! For more information on OHD, see: www.nws.noaa.gov/oh/

LMRCSC Academic Partners:

University of Maryland Eastern Shore

Delaware State University

Hampton University

Savannah State University

University of Maryland Biotechnology Institute Center of Marine Biotechnology

University of Miami Rosenstiel School of Marine and Atmospheric Sciences

NOAA Collaborative Research Partner:
National Marine Fisheries Service

LMRCSC Program Manager:

Todd Christenson

Todd Christenson joined the Living Marine Resources Cooperative Science Center (LMRCSC) at UMES in 2004 in the newly created position of Program Manager, the multidisciplinary nature of which suited his interest and background.

Prior to coming to UMES, Mr. Christenson spent four years as an Environmental Biologist with the North Carolina Division of Water Quality. As a grad student, he pursued his love of all things marine at the University of South Florida, where he researched estuarine water quality and the impacts of harmful algae on shellfish while earning his Master's degree in Marine Science in 1998. Mr. Christenson's Bachelor's degree from Hampshire College was in history and Asian studies and he dabbled in financial services before deciding to prepare for graduate school. He is currently pursuing a graduate certificate in Database Systems Technology at University of Maryland University College.

Mr. Christenson has been known to spend time underground (caving), underwater (diving), on the river (kayaking), and in the mountains (hiking) exploring parts of the world near and far.

For additional information on the Living Marine Resources Cooperative Science Center at the University of Maryland Eastern Shore, please visit the website: http://www.umes.edu/lmrcsc

LMRCSC Post Docs:

Dr. Ayeisha Brinson

A graduate of the LMRCSC program, Dr. Ayeisha Brinson completed her Ph.D. at the University of Miami Rosenstiel School of Marine and Atmospheric Science in December, 2008. Her dissertation research evaluated the economic and fishery management implications of the artisanal and recreational fishing fleets that target Atlantic billfish in Senegal and Venezuela. The results of this study will be used to evaluate the tradeoffs associated with different billfish management strategies. Dr. Brinson was also the recipient of a McKnight Doctoral Fellowship. She received her B.S. from the University of Florida in 2000 and worked for the U.S. Geological Survey Fort Collins Science Center (2000-2002) before going on to pursue an M.S. from Colorado State University (2002). Dr. Brinson is now an economist at NOAA's Northeast Fisheries Science Center in Woods Hole, MA.

Dr. Matthew Ogburn

Dr. Matthew Ogburn is working in the thematic areas of quantitative fisheries and essential fish habitat. He earned his B.S. in Biology from Duke University and his M.S. in Marine Sciences from The University of Georgia, where he studied dieback of salt marsh grasses in coastal Georgia. His doctoral work was conducted at the Duke University Marine Laboratory, where he studied blue crab recruitment dynamics, larval behavior, and physiology. Dr. Ogburn's current research addresses recruitment, larval transport, population dynamics and ecology of commercially important invertebrates. In particular, he is continuing to study the effects of atmospheric forcing on recruitment of blue crabs and initiating a project on recruitment of pink shrimp to Florida Bay in collaboration with scientists at NOAA's Southeast Fisheries Science Center and the University of Miami Rosenstiel School of Marine and Atmospheric Science. Dr. Ogburn writes a blog, entitled *From the Shore*, on ocean science, policy, conservation and education (http://from-the-shore.blogspot.com/). In his spare time he enjoys sailing, kayaking, hiking, photography, skiing, and surfing.

LMRCSC Distinguished Scientist:

Dr. Eric May

Dr. May received his Master's degree from Northern Arizona University in aquatic ecology and his Ph.D. in comparative pathology from Oregon State University at Corvallis School of Veterinary Medicine. During his professional career, Dr. May served as Assistant Professor and Director of the Aquatic Toxicology and Pathobiology Center at the University of Maryland School of Medicine and Division Chief for the Fish Health Disease Programs at the Maryland Department of Natural Resources, before joining the faculty at UMES.

Dr. May served as Director of the NOAA Living Marine Resources Cooperative Science Center (NOAA LMRCSC) from 2001 to 2003, after which he accepted the position of Distinguished Research Scientist for the Center. His research interests include finfish aquaculture methods, particularly those associated with control of disease, physiological responses of fish to environmental stressors, and fish health indicators for measuring environmental quality and pathogens affecting wild fish.

With Dr. Rosemary Jagus, Dr. May was awarded the Maryland Board of Regents Award for Excellence in Teaching for his work with undergraduate and graduate students.

The Sky's the Limit: CSC K-12 Summer Programs

Since 2002, NOAA's Cooperative Science Centers (CSCs) have produced many outstanding K-12 summer outreach programs.

The **Cooperative Remote Sensing Science and Technology Center (CREST)** hosts CREST-SHIP (CREST High School Summer Internship Program) at the City University of the City College of New York (CUNY). Four-to-eight 11th and/or 12th graders and 2 science teachers participate in a six week program, during which students work on research projects related to CREST sciences. Since 2006, a two-week immersion program in NOAA-related science and has been conducted at University of Puerto Rico, Mayaguez. A one-day teachers' workshop is organized each year at Hampton University to train about 20 science teachers from Portsmouth City (VA) public schools. CUNY also hosts a two week weather camp for high school students, interacting closely with the local National Weather Service Office.

In 2008, the **Environmental Cooperative Science Center (ECSC)** ocean bowl team placed second in the National Ocean Sciences Bowl competition in the state of Florida, followed by a third place finish in the national science bowl competition hosted by the National Organization of Black Chemists and Chemical Engineers (NOBCCHe) in St. Louis, MO. Also in 2009, 32 high school summer campers at Florida A&M University were treated to classroom, laboratory and field activities related to invasive species and visited a number of sites, including Florida's Everglades and NOAA's Southeast Fisheries Science Center in Miami, FL.

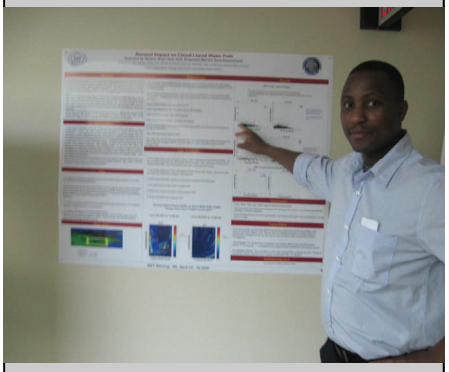
NOAA Interdisciplinary Scientific Environmental Technology Cooperative Science Center (ISETCSC) has a robust, new K-12 summer program. The camp has been popular, reaching capacity in 2008 and 2009, with more students on a waiting list. Participants visited atmospheric chemistry labs and observed actual experiments. They also performed weather-related experiments and toured the RENCI (Renaissance Computing Institute) located in Raleigh, NC and Morehead Planetarium in Chapel Hill, NC.

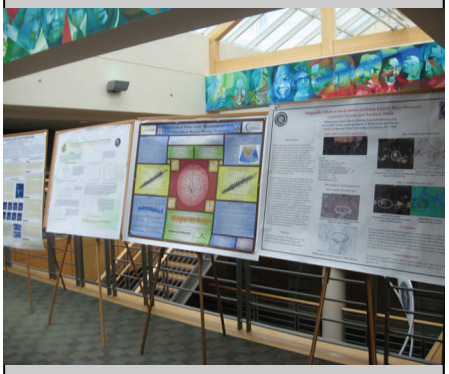
In 2009, the **Living Marine Resources Cooperative Science Center (LMRCSC)** offered its summer Coast Camp at Savannah State University to 109 youths. The camp uses the seven ocean literacy principles, developed by the ocean sciences and education communities, to teach students how to be better stewards of the marine environment. Students are divided into four classes: lower elementary (7-8 year olds); higher elementary (9-10 year olds); middle school (11-13 year olds); and high school (14-18 year olds). Summer topics include hurricane preparedness, seining, beach zonation, and species adaptations. Field and boat trips to aquaria, natural wetlands and to local beaches under the mentorship of LMRCSC faculty, staff and students help bring topics to life for these students.

NOAA Center for Atmospheric Sciences (NCAS) hosts three Weather Camps each summer. All three focus on the basic concepts of atmospheric science and meteorology; extreme weather; careers related to meteorology, ocean-atmospheric interactions; climatic patterns and predictions; and atmospheric instrumentation. Jackson State University hosted 11 students in 2008 from local high schools; the University of Puerto Rico at Mayaguez hosted 15 students in a Symposium on "Climatological Patterns & Predictions;" and Howard University hosted 13 students from 6 states and Puerto Rico.

CSC Evaluations, continued from Page 1

After the evaluations are completed, each team will deliver a preliminary report to EPP and to the appropriate CSC director.





NOAA Cooperative Remote Sensing Science and Technology Center (CREST) Participates in World Science Festival Street Fair

What do making clouds in a bottle, visualizing the wind and demonstrating the Coriolis effect have in common? They were all part of the hands-on activities at the NOAA-CREST weather activities booth at the World Science Festival Youth and Family Street Fair on June 14, 2009, which transforms the Washington Square Park area into a science wonderland. In its second year, the international festival, which spanned four days--June 10-14--is dedicated to the gathering the world's scientists, inventors and innovators. The mission of the festival is to, "cultivate and sustain a general public informed by the content and wonder of science, convinced of its value, and prepared to engage its implications for the future."

This year's events included more than 130 speakers and performers including NOAA Administrator Dr. Jane Lubchenco; Nobel laureates James Watson, Harold Varmus, David Gross, Frank Wilczek, Sir Paul Nurse and William Phillips; and performers Harrison Ford, Alan Alda, Glenn Close, Joshua Bell, James Naughton, Danny Burstein, Anna Deavere Smith and the Abyssinian Baptist Church Choir.

According to its website, "The World Science Festival is an unprecedented annual tribute to imagination, ingenuity and inventiveness, takes science out of the laboratory and into the streets, theaters, museums, and public halls of New York City, making the esoteric understandable and the familiar fascinating." Events include performances, student interviews of world famous scientists, lectures, panel discussions, storytelling with a science theme, exploration of unusual science careers and the street fair. The Festival was co-founded in 2008 by Columbia University physicist Brian Greene and journalist Tracy Day.

Photos courtesy of CREST

University of Maryland Eastern Shore (UMES) Ph.D. graduate **Larry Alade** assumed the Presidency of the American Fisheries Society Equal Opportunity Section at the August, 2008 meeting and will serve in this capacity for two years.

Xaymara Serrano Ph.D., Rosenstiel School of Marine and Atmospheric Science (RSMAS) obtained a McKnight Fellowship to support her Ph.D. research. She also received the RSMAS Dean's prize for the best M.S. thesis of the year.

Marissa Brady M.S., Delaware State University (DSU) has been awarded a National Science Foundation Bridge to the Doctorate Fellowship. The total amount of this award is $30,000 per year plus approximately $10,000 to the University for tuition and expenses.

Frank Marenghi, (DSU) has received $12,500 through DuPont's Clear Into the Future Program to support his research activities.

Johnny Moore (DSU) has received $12,500 through DuPont's Clear Into the Future Program to support his research activities.

Florida A&M University (FAMU) Environmental Cooperative Science Center (ECSC) and EPP Undergraduate Scholar, **Sheritta Commey** presented a paper at the American Association of Limnology and Oceanography (ASLO) Aquatic Sciences meeting in Nice, France, January 25-30, 2009. The paper, entitled **"***Chemical Contamination Assessment of the Hudson Raritan Estuary as a Result of the Attack on the World Trade Center: Analysis of Trace Elements"* is being prepared for publication and will serve as the basis for Ms. Commey's undergraduate thesis at FAMU's Environmental Sciences Institute.

Kawana Fuller, M.S. Computer Science, a student at North Carolina State University (NCSU) won first prize in the Raytheon Paper Competition in the College of Engineering for her paper, entitled "Sensor Integration for Critical Infrastructure Protection," based on sensor-grid research.

Shelly Krueger (M.S. student, Savannah State University) is a 2009 Knauss Fellow. She is assigned as a Marine Mammal Health Specialist in the National Marine Fisheries Service.

University of Nebraska-Lincoln Environmental Cooperative Science Center graduate **Dan Becker** defended his Master's thesis, "Modeling the Effect of Urbanization on the Surface Runoff within the Apalachicola - Chattahoochee - Flint Watershed." He has been hired by CB Richard Ellis as a GIS Technician.

Eboni Gordon B.S. Engineering and Ruben Buaba, students at North Carolina A&T State University (NCA&T), won first prize in the Center for Autonomous Control & Information Technology (ACIT) of North Carolina A&T State University and Progress Energy of the Carolinas for their paper entitled "Solar Electricity, A Key To Energy Independence."

Darkus Jenkins Ph.D. Energy and Environment Systems (EES), a student at NCA&T spent the summer developing skill in the synthesis, spectroscopic and theoretical modeling area in Dr. Omary's group at the University of North Texas in Denton, TX. The title of her project was "Photoinduced Multi-electron Transfer in Gold (1) Systems," presented at the ACS Southwestern Regional Meeting in Little Rock, AR in October,, 2008.

Debra Ragland B.S. Chemistry at NCA&T was selected as the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE) recipient of "The Colgate Palmolive Undergraduate" award. The Award recognizes academic achievement and scientific research.

William Wright Ph.D. EES program, a student at NCA&T received the "2009 McNair Symposium Award" for the Most Outstanding Graduate Oral Presentation. The title of his presentation was :Smart Sensor Webs Using Agents and Web Services."

Anthony Cochran, Ph.D. EES program, a student at NCA&T is commissioning and will be conducting an experiment for trace gas-phase measurement of acids in the atmosphere via negative ion proton transfer (ion-neutral) reactions. The method and procedure provide a rapid, sensitive measurement of environmentally important chemical species and is a companion to experimental work in progress by researchers at NOAA-ESRL (Boulder, CO) to characterize ion-neutral reactions involving carboxylic acids.

Karen Cepero M.S. Marine Sciences, a student at NCSU, participated in an internship with NOAA's National Weather Service (NWS) Office of Hydrologic Development (OHD). She worked with the Hydraulic Group in the Inundation Mapping Project .

Charla Gaskins, a Ph.D. EES program student at NCA&T traveled to Indianapolis, IN, to present at the Transportation Research Board of the National Academies 4th Surface Transportation Weather and 7th Snow & Ice Conferences held on June 16-19, 2008. She reported on "Risk Assessments for Weather Based Accidents."

Cheickna Baber M.S. Computer Science, a student at NCA&T presented his research paper on "A Sensor Information Framework for Integrating and Orchestrating Distributed Sensor Services" at the 2008 World Congress in Computer Science Computer Engineering & Applied Computing in Las Vegas, NV.

Ian Colon-Pagan M.S. Physics, a student at NCA&T attended the Formosat -3/Cosmic Workshop in Taipei, Taiwan. He presented his summer research on "Comparison of Water Vapor Measurements from Ground-based and Space-based Atmospheric Remote Sensing Techniques."

Events and Conferences

Scenes from the 2009 NOAA Scholarship Orientation

Continued from Page 1

NOAA senior leadership—including NOAA Deputy Under Secretary Mary Glackin—as well as leading environmental scientists and NOAA program staff. Scholarship recipients attending the program included the Educational Partnership Program Undergraduate Scholars and Graduate Scientists, and the Ernest F. Hollings Undergraduate Scholars.









Conferences

8/30/09-9/03/09
American Fisheries Society (AFS)
Annual Meeting
Nashville, TN
www.fisheries.org

9/11/09-9/13/09
Minority Access National
Conference
www.minorityaccess.org

11/23/09-11/26/09
Thurgood Marshall Leadership
Institute
New York, NY
www.thurgoodmarshallfund.org/events/leadership_institute.php

10/08/09-10/11/09
Society for the Advancement of Chicanos And Native Americans in Science (SACNAS)
Dallas, TX
www.sacnas.org

10/31/09-11/02/09
Hispanic Association of Colleges and Universities (HACU)
23rd Annual Conference
Orlando, FL
www.hacu.org

11/04/09-11/07/09
Mexican American Engineers and Scientists Symposium and Career Fair (MAES)
www.maes-natl.org

11/12/09 – 11/14/09
NOAA Education and Science
Forum
Howard University
Washington, DC
www.gs.howard.edu/atmosci/default.htm

NOAA Office of Education

FIFTH EDUCATION AND SCIENCE FORUM

November 12-14, 2009

Hosted by:

The NOAA Center for Atmospheric Sciences (NCAS)

Howard University

Washington, DC

This forum is designed to bring together academics, government and private sectors, and the general public who are committed to building a well-educated and diverse scientific workforce.

Featured Opportunities:

- Professional Development Seminars
- Graduate School and Career Fair
- Student Travel Awards
- Oral and Poster Presentations
- Pre-College Activities for Middle School Students
- Networking

Information on forum registration, accommodations and abstract submissions are available on the NCAS website: www.ncas.howard.edu
Phone Inquiries: 202-865-8678

NCAS is a National Oceanic and Atmospheric Administration research facility funded through a Cooperative Agreement from the NOAA Educational Partnership Program

The NOAA Educational Partnership Program Cooperative Science Centers

NOAA's Cooperative Remote Sensing Science and Technology Center at the City College of the City University of New York

The NOAA Living Marine Resources Cooperative Science Center at the University of Maryland Eastern Shore

The NOAA Environmental Cooperative Science Center at Florida A&M University

The NOAA Interdisciplinary Scientific Environmental Technology Cooperative Science Center

The NOAA Center for Atmospheric Science at Howard University

www.epp.noaa.gov
301-713-9437
Educational Partnership Program
Office of Education
National Oceanic and Atmospheric Administration
U.S. Department of Commerce