#### NOAA's Educational Partnership Program with Minority Serving Instituitions



Winter 2005 Issue 1, Volume 2

#### **CREST/City College of New York Hosts Education and** Science Forum

The City College of the City University of New York (CUNY) was the site for the first EPP/MSI Science and Education Forum held October 21-23, 2004. The Forum brought together more than 350 students, government and university scientists and researchers, and industry



Nelum Dorabiwila, a student from the University of Maryland Eastern Shore, presents her research.

representatives who are engaged in activities that support NOAA's mission, and who have an interest in providing training and career opportunities for students attending Minority Serving Institutions (MSIs).

Forum speakers included Representative Charles Rangel (NY-15) and Representative Jose Serrano (NY-16), who gave encouraging words to the students and emphasized the importance of their research and accountability.

Rep. Serrano, a strong supporter of the EPP/MSI program, addressing the future researchers in the audience said, "I, therefore, challenge all of you as scientists to pursue research that improves the quality of life for all of our communities, and to be mindful of the need to work diligently to eliminate the unequal treatment of those in our communities who suffer because of the poor environmental quality."

Rep. Serrano further added, "I also believe that as scientists and students you have an obligation to give back to your communities through volunteer activities, tutoring or mentoring. It is truly a case of "each one, teach one" to maintain an interest in science and mathematics and to ensure the long-term protection of our local communities."

Margaret Spring, Senior Counsel of the Oceans and Fisheries Subcommittee of the Senate Commerce Committee, was one of the luncheon speakers. Ms. Spring gave the audience insight into legislation and proposed policies that will affect NOAA's mission and took questions from the audience regarding possible legislation on NOAA-related issues.

Dan Durrett, Director of the Minority Programs Office with the National Council for Science and the Environment served as the banquet speaker. Mr. Durrett told the students that it is important that underserved communities be concerned



about the health of our oceans and the environment. Mr. Durrett encouraged the students to aspire to positions of leadership, and that one day he "would expect that a student in this audience would take his place at the next forum and be the guest speaker."

The five plenary sessions that included presentations in atmospheric science,

marine and fisheries, environmental sciences, climate and weather, satellite remote sensing, and education and outreach were held during the two and a half-day event. There were four breakout sessions with concurrent sessions.

Of the 206 scientific papers prepared, 74 were selected for oral presentations, and 132 for poster presentations.

The presenters were primarily students who conduct research at MSIs affiliated with EPP's Cooperative Science Centers (CSCs), and institutions that have been awarded grants through the Environmental Entrepreneurship Program (EEP). The centers are the NOAA Center for Remote Sensing and Science Technology at CUNY; the NOAA Center for Atmospheric Research (NCAS), located at Howard University; the Living Marine Resources Cooperative Science Center (LMRCSC) at the University of Maryland Eastern Shore; and, the Environmental Sciences Center at Florida A&M University.

Admiral Lautenbacher, NOAA Undersecretary, praised the forum and the work of the Centers and EEP. The Admiral, in his noted remarks, said "I am especially pleased that research



being conducted by the Centers is central to NOAA's mission of science and service, and that this conference serves to nuture young talent in science and engineering."

For more photos from the Forum, see pages 7-8

Cheryl Simmons-Oliver represented Congressman Jose Serrano at the forum. The next EPP/MSI Education and Science Forum will be in Tallahassee, Florida, 2006, hosted by Florida A&M University's Environmental Cooperative Sciences Center (ECSC).

## Educational Partnership Program with Minority Serving Institutions



#### First Graduate Scientist To Receive Doctorate

LaToya Myles successfully defended her thesis on December 3, 2004 and became the first EEP Graduate Scientist to receive a Ph.D since the program was reinstated in 2001. The degree was awarded in Environmental Science from Florida A&M University (FAMU) in November 2004. Her research area was environmental chemistry and her dissertation topic was "A Study of Atmospheric Ammonia in Coastal Ecosystems Utilizing Relaxed Eddy Accumulation Techniques and Ion Mobility Spectrometry."

LaToya currently works as a physical scientist at the NOAA Air Resources Laboratory Atmospheric Turbulence and Diffusion Division in Oak Ridge, Tennessee. After receiving a B.S. degree in Chemistry from Alcorn State University she entered the Ph.D. program at FAMU. LaToya was accepted into the Graduate Sciencies program in 2001.

Her research interests are atmospheric chemistry (especially atmospheric deposition), water quality in coastal regions, ion mobility spectrometry, and environmental justice.



#### **Charles Doxley Wins Essay Competition**

Charles Doxley (Undergraduate Scholar 2004), an Albany State University (Georgia) student won \$7000 worth of Hewlett-Packard computer equipment for an essay written for the Thurgood Marshall Leadership Conference in New York. Charles, a Thurgood Marshall Scholar at Albany, attended the three-day conference with other scholars from around the U.S.

The Thurgood Marshall Scholarship Fund, a merit-based scholarship program established in 1987, assists students who have demonstrated a commitment to education. Its participating colleges and universities constitute some of the nation's largest and most prestigious institutions of higher education.

During his internship this past summer, Charles conducted data acquisition systems research with the National Ocean Service's Center Operational Oceanographic Products and Services division. Congratulations, Charles!



From Intern To NOAA Employee

Undergraduate Scholar Martin Yapur was accepted into the Graduate Sciences Program and has successfully transitioned from student intern to NOAA employee.

Martin, as an Earth and Atmospheric Sciences major at the City College of the City University of New York (CUNY), was unsure of his plans after college – he applied and was accepted into the Summer 2002 Undergraduate Scholars Program class. Martin's summer internship research, utilizing computer applications and satellite imagery to determine the average annual chlorophyll concentrations of the Great Lakes, was with the NOAA Environmental Satellite and Data Information Service (NESDIS). After that experience Martin decided to pursue his advanced degree in atmospheric science and was accepted into the Graduate Scholar Program. Today, Martin works as a Physical Scientist in NESDIS's Office of Systems Development.



Former Undergraduate Scholar Now NOAA Meteorologist

A lifelong curiosity in the formulation of severe weather prediction has led Jamese Sims, a 2003-2004 Undergraduate Scholar, to fulfilling her wish: becoming a NOAA Meteorologist. Jamese, a 2003-2004 Undergraduate Scholar, is now a Meteorologist with the Marine Modeling and Analysis Branch (MMAB) of the Weather Service's Environmental Modeling Center.

Jamese received a degree in Meteorology from Jackson State University (Mississippi) in 2004. During her EPP internship, she interned as a Research Assistant with NOAA's National Center for Environmental Predictions (NCEP) and with NOAA's Atlantic Oceanography and Meteorological Laboratory's Hurricane Research Division in Miami, Florida. Her research focused on predicting hurricanes utilizing simulations of previous events that occurred in the Gulf of Mexico.

Jamese hopes to continue her studies and obtain an advanced degree in Meteorology. "As a graduate student, I will focus on numerical modeling, with an emphasis on hurricane and severe weather research," according to Jamese. She is now in the Meteorology Graduate Program at Howard University and will work with NOAA's Center for Atmospheric Science, an EPP Cooperative Science Center.

### **Educational Partnership Program with Minority Serving Institutions** Living Marine Resources Cooperative Science Center/University of Maryland Eastern Shore



Savannah State University Student Kemit Amon Lewis won an award at the EPP Science and Education Forum for his poster presentation "Analyzing Nesting Periods and Cyclical Return Patterns of Leather back Sea Turtles (Dermochelys coriacea) on Sandy Point Beach, St. Croix, and the U.S. Virgin Islands".

A group of LMRCSC students and faculty participated in a Center-dedicated research cruise from January 17-28, 2005 aboard the NOAA Research Vessel Albatross. Research projects were developed by Drs. May, Johnson, and Love of UMES on predator/prey interactions of striped bass and Atlantic menhaden, life history, abundance and distribution of monkfish, and the effects of fishing gear on the survival of spiny dogfish. Thanks are due to Chuck Byrne, Russ Brown, Pete Chase, Vic Nordahl, and Jack McAdam of NOAA Fisheries at Woods Hole, who took time out of their busy schedules to help plan the cruise, the first in a series that will take place over the next three winters. This experience will provide a springboard into blue water fisheries research for the LMRCSC.

The 134th Annual American Fisheries Society (AFS) meeting in Madison, WI marked an important milestone in the development of the Center and the beginning of an important relationship between the LMRCSC and AFS. A workshop, arranged by Dewayne Fox of Delaware State University, was held on October 25, 2004 brought together graduate and undergraduate students in a combined oral and poster session which highlighted research activities conducted by the LMRCSC. Congratulations are due to UMES senior Maria Richardson, who received the Best Oral Presentation award for her talk entitled "The Influence of feeding on serum chemistry of striped bass (Morone saxatilis)" and UMES graduate student Ai'sha Washington, who was awarded Best Poster for: "Role of trace element contaminants and nutrient deficiency in idiopathic



Matthew Grabowski, an undergraduate from Delaware State University won an award for his research: "Examination of External Tag Retention and Post Tagging Survival in Delaware Bay Weakfish (cynoscion regalis)."

cardiomyopathy affecting pygmy sperm whales, Kogia breviceps". Many thanks to Laura Oremland, Christine Lipsky and Tom Bigford, all of NOAA, for graciously agreeing to serve as judges, and to Andrea Johnson and Ida Tilghman for planning and organizing the event. This event established what promises to be an important relationship between the American Fisheries Society and the LMRCSC.

The first funding cycle in the LMRCSC RFP process is now complete. A total of 22 proposals were submitted by scientists from the six LMRCSC partners, many in collaboration with other LMRCSC researchers, with NOAA, and with external agencies. Proposals covered topics as diverse as Hematodinium perezei in blue crabs, the impact of catch-and-release techniques on striped bass, harmful algal effects on ovster restoration, and essential habitat for flatfishes in coastal Georgia. Fourteen of these proposals were accepted for funding following a peer review by the Technical Advisory Board, composed of fisheries scientists primarily from NOAA. Proposals were developed following a series of four cooperative workshops held between NOAA and LMRCSC scientists. Four thematic areas were developed: Quantitative Fisheries, Essential Fish Habitat, Fisheries Socioeconomics, and Aquaculture. This process proved very useful in solidifying relationships among Center partners and between the Center and NOAA Fisheries and represents a new paradigm in the way research within the LMRCSC is identified and funded.



Dr. John Boreman, Director, NOAA Northeast Fisheries Science Center, with UMES Ph.D students Larry Alade and Bashiru Balogun

Information taken from the LMRCSC Website: <u>http://www.umes.edu/osp/marine</u>

## Graduate Scientists- Class of 2004



Larry Alade, Research Fisheries Biologist NOAA Fisheries

B.S.- Biology, 1999 M.S.-Computer Science, 2002 Ph.D - Marine Science (expected 2006) University of Maryland Eastern Shore



Vanessa Nero, Research Ecologist NOAA Ocean Service

B.S.- Biology, University of Notre Dame, 2001 Ph.D.- Biology, University of Miami (expected 2006)



Jamese Sims, Meteorologist NOAA Weather Service

B.S.- Meteorology, Jackson State University, 2004 M.S.- Atmospheric Sciencies, Howard University (expected 2007)



Cassandra Barnes, Program Analyst NOAA Oceanic and Atmospheric Research

B.S.- Colorado State University Environmental Health Science, 1995 Ph..D - Environmental Science Florida A&M University (expected 2006)



*Ahira Sanchez, Physical Scientist NOAA Satellites and Information Service* 

B.S.- Physics, University of Puerto Rico, Mayaguez 2004 M.S.-Meteorology University of Hawaii (expected 2006)

> Fact: To date, NOAA has hired 24 Scientists through the Graduate Sciences Program



The National Oceanic and Atmospheric Administration's Educational Partnership Program with Minority Serving Institutions



NOAA's Educational Partnership Program is designed to provide financial assistance to minority serving academic institutions for the support of collaborative research and training of students in the NOAA-related sciences. The program's goal is to increase the number of students who are trained and graduate in sciences directly related to NOAA's mission. It also seeks to increase collaborative research efforts between NOAA scientists and researchers at minority serving academic institutions, as defined by the Department of Education.



The City College of the City University of New York NOAA's Cooperative Remote Sensing Science and Technology Center (CREST) Dr. Reza Khanbilvardi, Director T-107 Steinman Hall City College of CUNY 140 Street @ Convent Avenue, New York, NY 10031 212-650-8379 Phone: 212-650-8097 Fax: Email: noaa-crest@ccny.cuny.edu Web: http://icerd.engr.ccny.cuny.edu/noaa/ Partners Institutions: Lehman College Bronx Community College Hampton University University of Puerto Rico at Mayaguez Bowie State University University of Maryland Baltimore County Columbia University



**University of Maryland Eastern Shore** NOAA's Living Marine Resource Cooperative Science Center Dr. Joseph Okoh, Acting Director LMRCSC Building University of Maryland Eastern Shore Princess Anne, Maryland 21853 410-651-6023 Phone: 410-651-7869 Fax: Email: jokoh@mail.umes.edu http://www.umes.edu/osp/marine/ Web: Partner Institutions: Delaware State University Hampton University Savannah State University University of Maryland Marine Biotechnology Institute University of Miami



#### Florida A&M University

NOAA's Environmental Cooperative Science Center Dr. Larry Robinson, Director ECSC/Florida A&M University Science Research Center Tallahassee, Florida 32307 Phone: 850-412-3521 850-412-7785 Fax: Email: larry.robinson@famu.edu Web: http://www.ecsc.famu.edu Partner Institutions: Delaware State University Jackson State University Morgan State University South Carolina State University



**Howard University** NOAA's Center for Atmospheric Sciences Dr. Vernon Morris, Director NCAS/Howard University 525 College Station Washington, DC 20059 Phone: 202-806-5450 202-667-7865 Fax: Email: vmorris@howard.edu Web: http://www.gs.howard.edu/atmosci/default.htm Partner Institutions: Jackson State University University of Texas at El Paso University of Puerto Rico at Mayaguez

#### **Environmental Entrepreneurship News**

#### **Clark Atlanta University**

#### Laredo Community College

Clark Atlanta University (CAU) received an EEP grant to provide students with entrepreneurial training in coastal environmental restoration, pollution prevention and management skills. With the grant, CAU created a pilotscale demonstration project that trasformed fish wastes into high quality protein, thereby providing an incentive for coastal aquaculture systems to recycle pond effluents.



A CAU student (left) conducting research on the use of zeolite-filled fluidized bed for ammonia removal from aquaculture waste.

Since the program began in 2001, seventeen CAU undergraduate students, majoring in chemistry, biology, and engineering, have participated in the project. Several of these students are currently pursuing graduate studies in engineering and physical science careers in the private sector. Six program alumni are pursuing graduate degrees in NOAA related disciplines, including, chemistry, environmental science, chemical and civil engineering. One former student is employed as a civil engineer at Weston Solutions Inc.; his ultimate goal is to become an environmental engineer consultant. The program will add six additional students May 2005.

#### **Deep Sea Research**



Abby Nalevanko, a student at Barry University (Miami Shores, Florida) conducting research on sea urchins. Barry University received an EEP grant to encourage students to pursue careers in the NOAA-related sciences. To see more about this program, please go their website: www.barry.edu/noaa



LCC students visit NOAA Weather Service Office

Utilizing EEP grant funds, Laredo Community College (LCC) recruited nineteen students to participate in internships and engage in environmental industry management training activities. Some of these activities include interning with local and community environmental organizations and companies. The interns actively monitored air, soil, wastewater, cooling water, raw water (rivers and lakes), environmental health, and waste disposal in their local community.

Fourteen of the interns visited the NOAA National Weather Service (NWS) in Brownsville, Texas. NOAA employees described various science and environmental research careers. The students enjoyed learning about the importance of NWS's technology and the role of weather modeling in developing timely and accurate forecasts and information.

Other education tours included University of Texas-Pan American Marine Science Institute on South Padre Island, Texas to view marine life and ecosystems of the Texas Gulf Coast. One visit to an environmental-based nursery business, where the students collected and potted 600 native woody shrubs and trees from along the Paso del Indio Nature Trail, resulted in an offer to train students, through internships, to operate and manage nurseries.

#### Fact:

Since 2001, more than 400 students have taken courses and participated in education and science training programs funded by Environmental Entrepreneurship Grants Scenes from the Education and Science Forum City College of the City University of New York October 2004



Mr. Dan Durrett, President, Danhiko International, and an advocate for environmental awareness and education programs, was the banquet speaker.



Mr. Steve Drescher, NOAA Grants Office, gave an update on application procedures for federal grants.



Dr. Terry McTigue, NOAA Ocean Service, discusses a student's research at the Poster Session.



Dr. Richard Rosen, Assistant Administrator for NOAA Oceans and Atmospheric Research, with Dr. Gregory Williams, President of the City College of the City University of New York, the Forum's host.

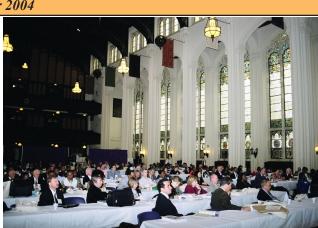


Margaret Spring (center), Minority Counsel for the Senate Oceans and Fisheries Subcommittee, Senate Commerce Committee, was the luncheon speaker. With Ms.Spring are NOAA Weather Service's Deputy Assistant Administrator Mr. John Jones, and Dr. Priti Brahma.

Scenes from the Education and Science Forum City College of the City University of New York October 2004



Students and faculty from Delaware State University attended the forum.



Shephard's Great Hall







# New Faculty and Staff

## **Events and Programs**

### NCAS Appoints Dr. Yu Distinguished Scientist



Dr. Yu

The NOAA Center for Atmospheric Sciences (NCAS) at Howard University has appointed Dr. Tsann-wang Yu as its Distinguished Scientist. Dr. Yu will bring his expertise in modeling to NCAS after his retirement as a Meteorologist with the Marine Modeling and Analysis Branch, Environmental Modeling Center, National Centers for Environmental Prediction of the NOAA Weather Service (NWS) in Camp Springs, Maryland.

As NCAS's Distinguished Scientist, Dr. Yu will develop and lead key research projects to improve the accuracy of weather and climate forecast models, particularly in predicting participation. Led by Center Director and Principal Investigator Dr. Vernon Morris, NCAS trains and produces highly educated and skilled students for research and operational careers in weather and climate prediction.

Dr. Yu, who has been with NOAA since 1976, has focused his research on atmospheric and oceanic dynamics and numerical weather prediction; atmospheric and oceanic data analyses and assimilation; short range synoptic and mesoscal weather analyses and forecasting; and, numerical modeling of the atmospheric and oceanic boundary layer flows.

Dr. Yu received a B.S. in Meteorology from the National Taiwan University and an M.S. and a Ph.D in Atmospheric Sciences from the University of Texas at Austin. He is a member of the American Meteorological Society, the American Geophysical Union, the Chinese American Natural Disaster Mitigation Association, the North American Taiwanese Professor Association, and the Chinese American Oceanic and Atmospheric Association. American Indian Higher Education Consortium (AIHEC) March 30-April 6 Albuquerque, NM

League of United Latin American Citizens (LULAC) June 27-July 2 Little Rock, Arkansas

**National Marine Educators Association (NMEA)** July 11-16 Honolulu, Hawaii

National Council of La Raza (NCLR) July 16-19 Philadelphia, PA

Society for Advancement of Chicanos and Native Americans in Science (SACNAS) September 29-October 2 Denver, CO

Hispanic Association of Colleges and Universities October 15-18 Phoenix, AZ

**National Association of Black Scuba Divers** November 9-13 Barbados

American Indian Science and Engineering Society (AISES) November 3-5 Charlotte, NC

# Strengthening NOAA's Commitment to Education Through Partnerships



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