



# OFFICE OF EDUCATION

## Educational Partnership Program

### & Student Scholarship News

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### NOAA Center for Atmospheric Sciences



The NOAA Center for Atmospheric Sciences (NCAS) focuses on producing outstanding students and research products in support of NOAA's mission to provide improved weather prediction, climate prediction and environmental monitoring. Advancing the understanding of weather, air quality, and climate as well as better understanding their implications for human health drives the research at NCAS. The Center's investigations include research to improve precipitation prediction, using a combination of measurements, models and data analyses. All research efforts entrain students in atmospheric and environmental sciences. Lead by Howard University (HU), the partnership includes Jackson State University (JSU), University of



Puerto Rico at Mayaguez (UPRM), University of Texas at El Paso (UTEP), University of Illinois Urbana-Champaign (UIUC) and the State University of New York Albany (SUNYA). In its 9<sup>th</sup> year, NCAS has continued to focus on graduating PhDs in several disciplines key to NOAA goals. HU, SUNYA, JSU and UIUC produce PhDs in Atmospheric Sciences/Meteorology, UPRM in Marine Sciences and JSU and UTEP in Environmental Sciences.

NOAA partners in NCAS include the National Weather Service (NWS), the National Environmental Satellite Data and Information Service (NESDIS) and

### From Center Director to NOAA Assistant Secretary

Dr. Larry Robinson, who served as the Director of the Environmental Cooperative Science Center (ECSC) led by Florida A&M University (FAMU) for the past 9 years, is now the Assistant Secretary for Commerce for Conservation and Management at NOAA. In this new position, Dr. Robinson is charged with directing NOAA's policy and strategy for conservation, protection and resource management priorities. The post will be critical to NOAA's efforts to implement the final recommendations of President Obama's Ocean Policy Task Force, including stewardship responsibilities for ocean resource management, coastal management and protected resources.



During his tenure as Director of the ECSC, Dr. Robinson was also Vice President for Research and a professor in the Environmental Sciences Institute at FAMU. In the press release issued by FAMU to announce his departure, the president of the university, Dr. James Ammons stated that, "While I am very happy for him, it is going to be a tremendous loss for the university. Dr. Robinson has had an outstanding career..." Chairman of the FAMU trustees Bill Jennings described him as, "...just an extraordinary person with a tremendous amount of talent."

"Protecting valuable coastal ecosystems and marine life while promoting resilient coastal communities is critical to the economic well-being and health of the nation," U.S. Commerce Secretary Gary Locke said. "Dr. Robinson has broad, interdisciplinary scientific expertise in marine and coastal ecosys-

[www.epp.noaa.gov](http://www.epp.noaa.gov)

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## NOAA Mentor Profile: Thomas Bigford

### NOAA Mentor Profile: Tom Bigford

Benjamin Disraeli said, "The greatest good you can do for another is not just to share your riches, but to reveal to him his own." Thomas Bigford has found that mentoring students and young professionals has been among the most rewarding aspects of the many jobs he has held over the decades. Currently Chief of the Habitat Protection Division (HPD) within the National Marine Fisheries Service (NMFS) Office of Habitat Conservation (OHC), he can count among his NOAA colleagues many of those interns that he hired, and young professionals that he counseled.

It's a road he started down after a job during graduate school with the Environmental Protection Agency (EPA) in Narragansett, RI. Several excellent supervisors counseled him on his work at the EPA marine lab, his coursework, participating with professional societies, attending conferences and his longer-term career plan. He benefited greatly from their insight, and determined to help others who might find themselves in his situation.

During 31 years and counting with NOAA, coinciding with 35 years of volunteer work with The Coastal Society, [www.thecoastalsociety.org](http://www.thecoastalsociety.org), Mr. Bigford has made a point of providing advice to and hiring interns as well as considering those young professionals for longer-term positions. "I see this type of role as very important for every NOAA employee. We need to help the new professionals just as others helped us," he states emphatically.

Minimizing the effects that humans have on resources in the oceans, estu-

aries and up into rivers, the Habitat Protection Division strives to protect and conserve coastal and marine habitats to help sustain healthy populations of living marine resources. HPD often works with other government agencies (Federal and state) as well as industry sectors to minimize their footprint on the environment. Here in Silver Spring, MD, the division focuses more on the policy side of that job; around the country they have got colleagues who are involved in individual projects.

In the 15 years that he's been here at NMFS headquarters, Mr. Bigford estimates he's had 30-40 interns of various kinds: Undergraduate Scholars, Hollings Scholars, Graduate Scholars, Sea Grant Fellows, and Coastal Society interns; he speaks in glowing terms of their positive impact. "Interns are a great way to bring new blood, new ideas and new energy into an office. It's a really good technique for "test driving" the intern and it's a terrific opportunity for the students to understand the career opportunities that NOAA offers. For the undergraduates, the internship opportunities often guide them toward graduate school and more advanced degrees." Sometimes the candidates may simply be attracted by the stipend, but they can come out of an internship at NOAA enamored of work they never realized could be their career. Without that internship opportunity, that initial connection might not have been made, and the student might not have realized just what NOAA could offer.

Mr. Bigford advises students seeking internships to be as thorough as possible when doing their research, but not to limit themselves to formal internship programs. They need to figure out

where they might like to work, identify a key contact there, get in touch with them and then sell themselves! He acknowledges that approach takes self-confidence, but even more importantly, it requires good communication skills. Whether he's talking to a potential summer intern or an applicant for a full-time position, Mr. Bigford is looking for the individual's ability to articulate and to write clearly. He elaborates, saying that, "Persistence is also important; remember that if you make the first contact and you get a response, write back quickly! Demonstrate your passion and learn what you can about your topic; I don't want to just hear that 'you want to be a marine biologist,' I want to know **what** you want to do!"

To would-be mentors, Mr. Bigford has advice on getting the most out of your students. In addition to their day-to-day advisor, he suggests trying to pair them with someone in the office who can provide help with the mundane aspects of life, e.g., how you buy a



ticket for the Metro. His office has sometimes welcomed interns by organizing a

William B. Folsom, NMFS

group to help them move in to their summer living arrangement. Reaching out to make them feel comfortable right from the start (and involving them in occasional social activities) is more than just a friendly gesture; it often helps the student to more quickly start on their project, so they can accomplish the project goals. Those goals need to be very specific

Interns are a great way to bring new blood, new ideas and new energy into an office. It's a really good technique for "test driving" the intern and it's a terrific opportunity for the students to understand the career opportunities that NOAA offers.

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with understandable expectations. He emphasizes that it's important to ensure the student knows there's more than one person in the office who can answer their questions, so they've always got somewhere to turn.

While he's worked with a number of different internship programs, Mr. Bigford appreciates the opportunities that Office of Education scholarship programs offer to tap into underrepresented populations, saying, "We need to reach out to all, if we are going to attract the best and the brightest to careers here at NOAA."

### Seven Dr. Nancy Foster Scholarships Awarded

NOAA has selected seven graduate students as national recipients of the **Dr. Nancy Foster Scholarships**, representing graduate-level scholars in marine biology, coastal resource management, and maritime archeology. The scholarships were established in memory of Dr. Foster, a leader in marine resource conservation who was inspirational in her role as one of the top senior executives in the marine field. Congress created the scholarship in 2000 as a means of honoring her life's work, 23 years of service to NOAA, and her contribution to the nation.

Each scholarship recipient will receive an annual stipend of \$30,000, up to \$12,000 annually as an education allowance, and is eligible for up to \$10,000 to support a four to six week research collaboration at a NOAA facility. Doctoral students are eligible to continue the scholarship program for four years and master's level students for two years.

The seven scholarship recipients are: Julia Burrows, Duke University; Melinda Conners, University of California at Santa Cruz; Sherri Eldridge, University of Massachusetts, Dartmouth; Corinne Gible, University of California at Santa Cruz; Jessica Joyner, University of Georgia at Athens; Jessica Lopez, Hawaii Pacific University; and Michelle Meadows, Florida Institute of Technology.

### Science and Education Symposium, August 3-5, 2010

NOAA's Office of Education sponsors a Science and Education Symposium each summer, attended by all Office of Education student scholars as they finish their internships. Projects are presented in poster or PowerPoint format, as determined by the scholar and their NOAA mentor. This year's symposium once again demonstrated the extraordinary research performed by our student scholars, and resulted in the following first place award winners:

**Poster Presentations, Ecosystems:** Ashley Hibbard, "*Integrating the Florida Keys National Marine Sanctuary Research Permit Database with ArcGIS to Visualize Scientific Utilization Patterns*" and Jesse Thornburg, "*AUV/ROV Research for Sensing Light Levels and Scar Size in Eelgrass Beds.*"

**Poster Presentations, Other:** Molly Moynihan, "*E-coli and Enterococci Concentrations in Great Lakes Beaches: Implications of Small-Scale Sampling Variability on Perceived Threats to Human Health.*"

**Oral Presentations, Weather and Water:** Christopher Slocum, "*Improved Analysis of the Tropical Cyclone Outer Wind Structure Using IR Satellite Wind Retrievals in a Global Numerical Weather Prediction Model,*" and Nicole Grams, "*Verification of Operational Storm Surge Forecasting Tools at the National Hurricane Center.*"

**Oral Presentations, Climate:** Abigail Dyer, "*Vog on the Big Island of Hawaii.*"

**Oral Presentations, Mission Support:** Martin Blow, "*Utilizing Advanced Technologies in Oceanographic and Atmospheric Observations.*"

**Oral Presentations, Ecosystems:** Kimmaree Horvath, "*Coral Reef Response to Climate change and Ocean Acidification: Building the Baseline.*"

The complete list of award winners can be found at [http://www.epp.noaa.gov/ssp/usp/usp\\_docs/2010\\_final\\_week\\_winners.pdf](http://www.epp.noaa.gov/ssp/usp/usp_docs/2010_final_week_winners.pdf)



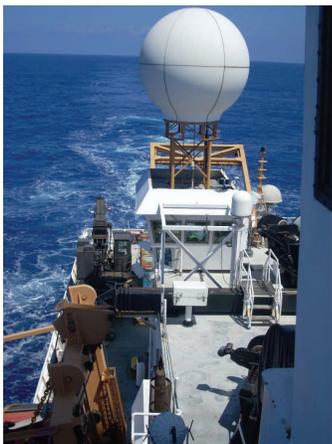
Left to right: Louisa Koch, Solomon Bililign, Vernon Morris, Jane Lubchenco, Paulinus Chigbu, Reza Khanvilibardi, Jacqueline Rousseau

### Cooperative Science Center Directors Meet with Dr. Jane Lubchenco, NOAA Administrator

## Cooperative Science Center Profile: NCAS

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the Office of Oceanic and Atmospheric Research (OAR). NCAS is also building a data collaboration with the NOAA Climatic Data Center, to establish Howard University's 103 acre Beltsville, MD campus as an international climate monitoring reference site. Atmospheric water vapor and temperature are important indicators of climate variability; this alliance is aimed at im-



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proving the accuracy and precision of these measurements. Beltsville air quality data is being used to increase insight into the physical processes that determine ozone concentrations, supporting NOAA's air quality forecast program. NCAS students have exceptional opportunities for hands-on training in instrumentation and atmospheric observation at the Beltsville campus.

Jackson State University leads NCAS participation in the development of a suite of mesonet stations in Mississippi that provide an important opportunity for NCAS partners to develop high quality ground truth data for model validation, case studies and service to NOAA's National Weather Service and local communities. The University of Puerto Rico at Mayaguez hosts atmospheric and marine observation facilities that include marine vessels for oceanographic surveys, air-sea interaction studies and atmospheric observations. Students are routinely offered short at-sea education trips aboard research vessels.

NCAS has structured a three-tiered system to supplement regular recruitment by partner schools, in an effort to significantly broaden and increase exposure of underrepresented students

to new career opportunities in NOAA-relevant fields. The primary mode has been hands-on training in the latest weather and climate instrumentation and models, coupled with mentorship by scientists and professionals from underrepresented groups. The initial component of the three-tiered system is a hands-on training programs offered to high school and middle school students. The centerpiece of these efforts is the nationally recognized summer weather camp programs for high school students. Primarily geared towards rising juniors and seniors, this activity seeks to encourage enrollment in undergraduate science degree programs. Camps are usually sponsored in Washington, DC; Mayaguez, Puerto Rico; Jackson, MS; and El Paso, TX. Recently leveraged funding has enabled linkages to weather camps at NC A & T University in Greensboro, NC and City College of the City University of New York.

Students engage in hands-on activities, field experiments, seminars, tours of research facilities and workshops.

During weather camp, students are exposed to the college experience through their stay in university dormitories, interactions with graduate students and use of campus facilities. A highlight of the camps is the weather forecasting contest. Students compete over the 2 week period to make the most accurate weather forecasts for different regions of the globe. NCAS also sponsors shorter middle school



ScienceFests, in which middle school students are exposed to basic concepts and career opportunities in atmos-

pheric and environmental sciences. These outreach activities have been conducted in Puerto Rico, Washington,



DC, and El Paso, Texas.

The 2<sup>nd</sup> component is comprised of summer workshops on atmospheric instrumentation and data analysis, meteorological modeling, and remote sensing for advanced undergraduates and first year graduate students. Workshops range in length from 4 to 12 days and are distributed throughout

the NCAS partner institutions. In the 3<sup>rd</sup> component, undergraduates are offered internships and at-sea training programs in an effort to attract them to graduate programs at partner institutions. During several summers, this has included month long cruises on the NOAA Ship

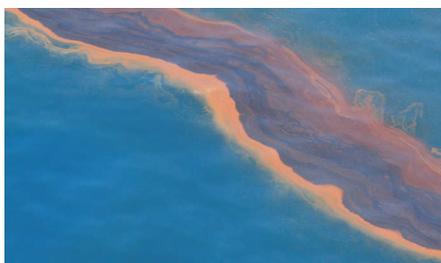
Ron Brown; also referred to as AEROSE – the AERosols and Ocean Science Expeditions—where students participate in an ongoing investigation of the impacts of aerosols and air mass flows from West Africa on the regional atmosphere and ocean.

Among other outreach efforts, NCAS hosted its 9<sup>th</sup> Annual Colour of Weather, "Networking Reception to Celebrate Diversity in Atmospheric Sciences" during the American Meteorology Society's 90<sup>th</sup> Annual Meeting in Atlanta, GA in January this year, with more than 250 participants. In November, 2009, NCAS hosted NOAA's 5<sup>th</sup> Education and Science Forum at Howard University. NCAS-sponsored students also routinely attend and present their work at other conferences in their fields of study.

*New Assistant Secretary, continued from page 1*

tems and understands how they contribute to economic and societal health. His proven capability as a visionary leader and experience integrating many complex program objectives will advance NOAA's efforts to ensure the health and vitality of coastal communities and the resources on which they depend."

Immediately after being sworn into his new position, Dr. Robinson was on the job in the Gulf of Mexico, scrutinizing the impacts of the environmental disaster resulting from the oil spill from the BP Deepwater Horizon. He met with NOAA staff and other Federal



BP Deepwater Horizon Oil Spill in Gulf

partners engaged in the massive government-wide effort directed at response actions and planning of future restoration activities in the Gulf of Mexico.

"Given his stellar credentials in coastal resource management and environmental sciences, and his familiarity with the Gulf Coast's marine ecosystems, I'm confident that Dr. Robinson will advance NOAA's role as the lead scientific advisor to and partner in the federal government's oil spill response," said NOAA's Administrator, Dr. Jane Lubchenco.



### NOAA AA Jack Hayes Visits NCAS Beltsville Campus



### NOAA Assistant Administrator Visits the NOAA Center for Atmospheric Sciences at Howard University's Beltsville Campus

*(Excerpted from an article by DaNa L. Carlis, National Centers for Environmental Prediction, published in NWS Focus)*

On March 3, Dr. Jack Hayes, NOAA Assistant Administrator for the National Weather Service (NWS) visited the Howard University Beltsville campus to learn more about the NOAA Center for Atmospheric Sciences (NCAS) at Howard University (HU). NCAS is funded by the NOAA Educational Partnership Program (EPP). According to Dr. Vernon Morris, Director of NCAS, the goal of the meeting was, "to familiarize Dr. Hayes with the resources available at Howard, to support NWS operations and research, and to push for the integration of NCAS (e.g. relevant components of the measurement capabilities within the Beltsville measurement programs) into NWS strategic plans." Dr. Hayes was also given a tour of the entire observation site, which he later described as "...an innovation center for observational and modeling concepts."

NWS employees DaNa Carlis and James Sims at the NCEP Environmental Modeling Center, and Michelle Hawkins and Shari Dixon of the Office of Climate, Water, and Weather Services are all products of the NCAS program.

## NCAS People/NOAA Restoration Day

### NCAS Distinguished Scientist

NCAS Distinguished Scientist Dr. **Tsann-wang Yu** is a Graduate Professor in the Department of Mechanical Engineering and the graduate program in Atmospheric Science at Howard University. He brings his expertise in modeling to NCAS after 28 years as a research meteorologist at the Environmental Modeling Center (EMC) of the NOAA



Centers for Environmental Prediction (NCEP). As the NCAS distinguished scientist, he oversees the NCAS research program, developing and leading research projects to improve accuracy of climate and weather models, particularly in precipitation forecasts. His current research is focused on developments of new methodologies for effectively including physical processes in data assimilation systems, as well as developing new time stepping schemes to improve the proper coupling of physics and dynamics in global and regional weather and climate prediction models.

### NOAA Restoration Day

NOAA Restoration Day is organized by the National Ocean Service and the National Marine Fisheries Service, and is one of the largest voluntary federal employee-sponsored environmental stewardship events in the Chesapeake Bay watershed region. This event has grown each year since 2004 as NOAA employees in Maryland and D.C. work to restore coastal habitat in the Chesapeake Bay watershed. This year's event took place on June 15 at the NOAA Cooperative Oxford Laboratory on the eastern shore of Maryland. Thirteen teams participated in fifteen restoration activities including planting Switch Grass previously grown in 26 office tanks, seining and sampling fish, restoring native oysters on an offshore reef and coastal bottom mapping via boat. Student scholars from the Educational Partnership Program were enthusiastic participants!



### Mentoring Organizations of Interest to Students and Professionals

The U.S. Office of Personnel Management defines mentoring as...“a formal or informal relationship between two people; a senior mentor (usually outside the protégé’s chain of supervision) and a junior protégé. Mentoring has been identified as an important influence in professional development in both the public and private sector.

Mentors are role models who demonstrate through their actions and shared experience how to achieve a successful, stable career. They are interactive reservoirs of knowledge with information on potential strategies for overcoming career goals. Mentors are advocates for their protégés and a key source of support and encouragement with a potentially unfamiliar system.<sup>1</sup> Studies have shown that mentors, particularly those of minority groups, play a large role in a student’s decision to stay in the sciences.<sup>2</sup> With that potential in mind, we’ve gathered a descriptive list of some organizations that may be of interest. We are aware that there are likely other student mentoring organizations. Suggestions for other organizations that mentor students should be sent to the editor, [ellen.gordon@noaa.gov](mailto:ellen.gordon@noaa.gov) for inclusion in a possible follow-up article.

**The Association for Women in Science (AWIS)** is dedicated to achieving equality and full participation for women in science, technology, engineering and mathematics. AWIS unites women through a nationwide network of chapters and partnerships with aligned professional organizations. Success is dependent upon the diversity of members, corporate and institutional partners and sponsors -- all of whom are committed to the advancement of women’s leadership in STEM. AWIS boosts members’ capacity by providing resources and referrals that expand their reach and promote their success. The AWIS community website

connects members to meaningful conversations about leadership, public policy issues, chapter happenings and tips on achieving work life balance. It includes a membership directory, blogs and discussion boards. More information can be found at [www.awis.org/](http://www.awis.org/)

**The Coastal Society (TCS)** is an organization of private sector, academic, and government professionals and students dedicated to actively addressing emerging coastal issues by fostering dialogue, forging partnerships, and promoting communication and education. The Coastal Society has seven student chapters, at Duke University, East Carolina University, the University of Rhode Island, the University of Washington, the University of Delaware, Stanford University, and the University of Hawaii. To further TCS goals of promoting student education, professional development and career growth, activities include mentoring, linking students and young practitioners to successful professionals, grants to assist student travel to biennial TCS conferences and special student awards at TCS conferences. Weekly TCS job listings provided to members also include internships and fellowships. More information can be found at [www.thecoastalsociety.org](http://www.thecoastalsociety.org)

**The Earth Sciences Women Network (ESWN)** is a peer-mentoring network of women in the Earth Sciences, most of whom are in the early stages of their careers. ESWN’s mission is to promote career development, build community, provide opportunities for informal mentoring and support, and facilitate professional collaborations. As of January 2010, ESWN has over 900 members spanning large research universities, small liberal-arts colleges, government agencies, and research organizations in the U.S. and abroad. Membership has grown through grassroots member networking and includes upper-level undergraduates, graduate students, professionals in a range of environmental fields, scientists working in federal and state governments, post-docs, junior and some senior academic faculty and scientists.

Annual networking events are held at the fall American Geophysical Union and spring European Geophysical Union meetings, and members organize informal gatherings at most major national and international meetings and workshops. In December of 2008, ESWN organized a workshop on Building Leadership Skills for Success in Scientific Organizations (supported by NOAA’s Office of Oceanic and Atmospheric Research (OAR), and University Corporation for Atmospheric Research’s Joint Office for Science Support (UCAR JOSS) and the Brown University ADVANCE program), and is currently planning future workshops to target additional areas for building skills among members (supported by a National Science Foundation ADVANCE PAID grant). More information can be found at <http://www.ESWNonline.org>

**EnvironMentors** is a national college access initiative that prepares high school students from under-represented backgrounds for college degree programs in environmental and related science fields. EnvironMentors is a collaborative effort of colleges and universities, mentors, aspiring high school students, science teachers, government agencies, community organizations, foundations and businesses that generously support our work. Environmentors matches minority high school students with college and university faculty, graduate and undergraduate students, and science and environmental professionals, in one-to-one mentoring relationships. Working together, students and mentors develop rigorous environmental science research projects over the course of the academic year. More information can be found at <http://ncseonline.org/EnvironMentors/cms.cfm?id=1880>

**Sigma Delta Epsilon, Graduate Women in Science (GWIS)** is an interdisciplinary society of scientists who encourage and support women to enter and achieve success in science through full participation in their scientific research and its applications; in the development and advancement of

## Student Mentoring Organizations

*Mentoring Organizations,, continued from page 8*

women; in the integration of careers, personal goals, and society's needs; and by professional networking and mutual inspiration. GWIS' mission is to advance the participation and recognition of women in science and to foster research through grants, awards, and fellowships. More information can be found at <http://www.gwis.org/index.html>

### **Mentoring Physical Oceanography Women to Increase Retention (MPOWIR)**

is a community-based program that provides mentoring to physical oceanographers from late graduate school through their early careers. The overall goal of MPOWIR is to make mentoring opportunities for junior physical oceanographers universally available and of higher quality by expanding the reach of mentoring opportunities beyond individual home institutions. The aim is to reduce the barriers to career development for all junior scientists in the field, with a particular focus on improving the retention of junior women. The MPOWIR effort includes a website, mentor groups, a blog, forums at major meetings and the Pattullo Conference for female early career scientists. Additionally, MPOWIR is engaged in collecting statistics and interviews from past and present U.S. PH.D. graduates to assess retention rates in the field, as well as to document the success of this effort. More information can be found at [www.mpowir.org/](http://www.mpowir.org/)

**MentorNet** is *The E-Mentoring Network for Diversity in Engineering and Science*. MentorNet is a nonprofit initiative whose mission is to further the progress of women and others underrepresented groups in scientific and technical fields through the use of a dynamic, technology-supported mentoring network and to advance individuals and society, and enhance engineering and related sciences, by promoting a diversified, expanded and talented global workforce. MentorNet's goal is to provide students, post-docs, and early career faculty with

mentoring to enhance their persistence in fields where they remain underrepresented and to facilitate their entry into scientific and technical careers. More information can be found at <http://www.mentornet.net/>

### **Minorities Striving and Pursuing Higher Degrees of Success in Earth System Science (MS PHD'S)**

was established with a goal of providing professional development experiences to facilitate the advancement of minorities committed to achieving outstanding Earth system science careers. In order to accomplish this goal, the MS PHDs initiative sponsors programs that provide minorities with:

- \*increased exposure to the Earth system science community, via participation in scientific conferences, mentoring relationships and virtual community activities;

- \*professional skills (e.g. grantsmanship, research, communication, teaching, etc.) and development opportunities;

- \*Information regarding future funding, education and career opportunities and resources;

- \*networking opportunities with established Earth system science researchers and educators; and

- \*membership within a virtual community that facilitates networking with and collaboration among peers, junior- and senior-level researchers and educators.

More information can be found at <http://www.msphds.org/overview.asp>

### **Significant Opportunities in Atmospheric Research and Science (SOARS)**

is an undergraduate-to-graduate bridge program designed to broaden participation in the atmospheric and related sciences. The program is built around research, mentoring and community. SOARS participants, called protégés, spend up to four summers doing research in atmospheric and related sciences. SOARS offers comprehensive financial support for summer research, as well as undergraduate and graduate school funding. SOARS invites students from many disciplines--

including meteorology, chemistry, physics, engineering, mathematics, ecology, and the social sciences--to apply their expertise to understanding the Earth's Atmosphere. In particular, SOARS seeks to involve students from groups that are historically underrepresented in the sciences, including Black or African-American, American Indian or Alaska Native, Hispanic or Latino, female, first-generation college students and students with disabilities. SOARS welcomes lesbian, gay, bisexual and transgender students; students who have experienced, and worked to overcome, educational or economic disadvantage and/or have personal or family circumstances that may complicate their continued progress in research careers. More information can be found at [www.soars.ucar.edu](http://www.soars.ucar.edu)

### **Strategies for Ecology Education, Diversity and Sustainability (SEEDS)**

is an education program of the Ecological Society of America (ESA). The SEEDS mission is to diversify and advance the profession of ecology through opportunities that stimulate and nurture the interest of underrepresented students. Focused at the undergraduate level, opportunities sponsored by the program include student field trips, undergraduate research fellowships, ESA Annual Meeting travel awards, and campus ecology chapters. The core SEEDS program components offer hands-on, engaging experiences with ecology that exhibit the relevance and applications of the science. Each experience also provides opportunities to interact with a diverse group of ecologists and other motivated students to both broaden and deepen students' understanding of ecology and potential careers. More information can be found at <http://www.esa.org/seeds/?pg=Seeds%20Home>

### **Womens Aquatic Network (WAN)**

brings together professionals with interests in marine, coastal and aquatic affairs and promotes the roles of women in these fields. It is lead and organized by women but membership

*Mentoring Organizations, continued on page 10*

## Student Mentoring Organizations/Scholars News & Activities

*Mentoring Organizations, continued from page 9*

is open to women and men. WAN organizes networking events approximately quarterly. Activities include Washington, DC-area luncheons or evening meetings with speakers on current topics of interest, plus an annual spring lecture that honors the late Dr. Nancy Foster. WAN sustains a listserv to help inform members of area events related to marine, coastal or aquatic affairs. WAN also maintains a website intended to inform membership of upcoming events, developments in federal marine and aquatic related legislation and networking opportunities. More information can be found at

<http://www.womensaquatic.net/index.html>

<sup>1</sup>Report of an MPOWIR workshop held October 9-12, 2005 at the Airlie Center, Warrenton, Virginia [http://mpowir.org/mpowir\\_FINAL5.30.06.pdf](http://mpowir.org/mpowir_FINAL5.30.06.pdf)

<sup>2</sup>The Scientist: Addressing Cultural Caveats [www.the-scientist.com/article/print/56180/](http://www.the-scientist.com/article/print/56180/)

### Three More NOAA Employees!

NOAA's Office of Education, Educational Partnership Program (EPP) is pleased to announce that Graduate Sciences Program (GSP) student **Micki Ream** completed her Master of Science Degree in Earth Systems from Stanford University in June 2010. Ms. Ream is now a full-time employee of



NOAA's Office of National Marine Sanctuaries Pacific Islands Region.

Ms. Ream received a Bachelor of Science with Honors in Marine Biology with a minor in Communication from Stanford University in 2009. In her current position as an Education Liaison, she works closely with the Waikiki Aquarium to bring information about the National Marine Sanctuaries to the public, fostering public understanding of the value of the ocean and our coasts.

GSP student **Jose Reyes-Tomassini**, who completed his PhD Degree in Marine, Estuarine and Environmental Science from the University of Maryland at



College Park (UMCP) in August 2009, is a full-time employee at NOAA's Northwest National Marine Fisheries Service (NMFS) in Seattle, WA. Jose's thesis was entitled "Behavioral and Neuroen-

docrine Correlates of Sex Change in the Gilthead Seabream (*Sparus aurata*)". For his thesis, Jose developed a set of software tools that enabled him to study Seabream behavior innovatively. By linking the molecular biology of sex change with the behavior of the fish during this process, Jose was able to shed new light into the basic questions surrounding the reproductive biology of this commercially-relevant species.

At Manchester Research Station, Jose is part of the Behavioral Ecology (BE) Team, which is focused on maximizing the productivity of cultured populations of salmonids. The BE team leads ecosystem-scale hatchery experiments in Hood Canal, and also works on understanding the behavior and habitat use of groundfish in Puget Sound using acoustic telemetry monitoring. Currently, Jose is co-leading an effort to make visualization and analysis of acoustic telemetry data easier to the scientist at the Center and throughout the Puget Sound region. Jose is also involved in a study of larval feeding behavior, which ultimately seeks to develop an on-demand feeder for larvae.

GSP student **James D. Sims**, who completed her Doctoral Degree in Atmospheric Sciences from Howard University in Washington, DC, in December 2009, is a full-time employee of NOAA NWS National Center for Environmental Prediction (NCEP) Environmental Modeling Center (EMC). You can read her story, in her own words, on page 2 of this newsletter.

[http://www.epp.noaa.gov/ssp\\_grad\\_sciences\\_page.html](http://www.epp.noaa.gov/ssp_grad_sciences_page.html)

## Scholar News & Activities/News from the Centers

### GSP Scholar Nelsie A. Ramos Really Gets Around!

"Another of my passions in life involves everything related to aircrafts (i.e. engineering involved, pilot licensing, aircraft operations, etc). Fortunately, the career that I have chosen, meteorology, has an impact, plays a great role and closely relates to aircraft operations. Tropical meteorology, specifically hurricanes and how they form, is what drives the passion for my career. Being able to combine my PhD research with tropical weather forecasting, and to experience flying in hurricanes missions is like having one of my greatest dreams come true." - Nelsie A. Ramos



### Interdisciplinary Scientific Environmental Technology Cooperative Science Center Day 2010

ISETCSC Day was held this year on February 26, 2010. The purpose was threefold: to provide college-bound high school seniors an opportunity to better understand earth and atmospheric science opportunities at both NOAA and at North Carolina A & T (in particular, the new degree program), to promote ISETCSC to the community, and to provide a research symposium with distinguished speakers that could help the public better understand climate change issues. Attended by high school students, college students, professors, NOAA representatives, high level University officials and U.S. Senator Kay Hagan, the program was also broadcast to all ISETCSC partner institutions, allowing their students and faculty to attend via webcast.



High School Students Attend ISETCSC Day



Students Show Poster of Their Research to U.S. Senator Kay Hagan

## Oil Spill in the Gulf

### NOAA's Oil Spill Response Effort in the Gulf of Mexico

As the nation's leading scientific resource for oil spills, NOAA was on the scene of the BP oil spill from the start, providing coordinated scientific weather and biological response services to federal, state and local organizations.

NOAA have mobilized experts from across the agency to help contain the spreading oil spill and protect the Gulf of Mexico's many marine mammals, sea turtles, fish, shellfish and other endangered marine life.

NOAA spill specialists have been advising the U.S. Coast Guard on cleanup options as well as advising all affected federal, state and local partners on sensitive marine resources at risk in this area of the Gulf of Mexico. Additionally:

- NOAA predicted the oil spill's trajectory and the path of the layers of oil floating on the surface for 107 days.
- NOAA's National Weather Service provided regular weather forecasts to a joint federal command center in Louisiana to facilitate operations planning and response efforts.
- Experienced marine mammal spotters from NOAA's Southeast Fisheries Science Center have participated in surveillance flights flown by the Office of Marine and Aviation Operations to assess the species and populations that may come in contact with the spill.
- NOAA also is using experimental satellite data from our Satellite Analysis Branch to survey the extent of spill-related marine pollution.
- To help determine the type and amount of restoration needed to compensate the public for harm to natural resources as a result of the spill, a Natural Resource Damage Assessment will be conducted by NOAA and our co-trustee agencies.

As a major partner in the federal response to this incident, NOAA will continue to provide the necessary coastal and marine expertise required for sound, timely decision-making and to help protect the affected Gulf coast communities and coastal marine environment.

For additional information on NOAA's role in the massive response effort on the Deepwater Horizon incident, please go to [http://response.restoration.noaa.gov/dwh.php?entry\\_id=811](http://response.restoration.noaa.gov/dwh.php?entry_id=811)



## Events of Interest

### Events

#### August 2010

LMRCSC UMES Professional Science Masters Program in Quantitative Fisheries and Resource Economics begins August 30, 2010

#### September 2010

White House Initiative Historically Black Colleges and Universities (HBCU) Week – September 12-15, 2010, Washington, DC

Atlanta University Consortium Career Fair 44<sup>th</sup>, Monday September 27, 2010, Hyatt Regency Atlanta Hotel, 265 Peach Tree Street N.E., Atlanta, GA 30303, 1:00 PM - 6:00 PM

Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) & MAES – a Society of Latino Engineers and Scientists Annual Conference (Jointly held) – September 29-October 3, 2010, Anaheim Convention Center, Anaheim, CA

#### October 2010

National Weather Association Annual Meeting, October 2-4, 2010 – Marriott Tucson University Park, Tucson, AZ

2010 Historically Black Colleges & Universities Undergraduate Program (HBCU-UP)

Tentative: AIHEC FALCON Annual Conference - October 23-26, Minneapolis Airport Marriott, Bloomington, MN

#### December 2010

American Geophysical Union (AGU) Fall Meeting – December 13-17, 2010, Moscone Convention Center, San Francisco, CA

### **Financial Assistance to Establish five NOAA Cooperative Science Centers at Minority Serving Institutions**

On July 16, 2010, NOAA's Office of Education (OEd), Educational Partnership Program (EPP) with Minority Serving Institutions (MSIs) published a Federal Register notice soliciting applications from accredited postsecondary MSIs to establish five NOAA Cooperative Science Centers (CSCs). The purpose of these Centers at MSIs is to: (1) Educate students in science, technology, engineering, and mathematics (STEM) fields related to the Centers' research areas to increase the number and diversity of NOAA's and the nation's STEM workforce; (2) Conduct research in collaboration with NOAA scientists and engineers to better understand the significance of changes in the Earth's oceans, coasts, Great Lakes, weather and climate; and, (3) Build capacity and sustainability in NOAA-relevant STEM areas at all Center institutions.

For additional information, please see the Federal Register Notice at [http://www.epp.noaa.gov/docs/epp\\_csc\\_frn.pdf](http://www.epp.noaa.gov/docs/epp_csc_frn.pdf), specifically page 41680.