Florida Agricultural and Mechanical University

College of Engineering Sciences, Technology and Agriculture
Center for Water and Air Quality
Tallahassee, FL 32307-4100

The Flow

Volume 8 Issue 1 | Water and Air Quality Newsletter | Spring 2011

EPA Designates the FAMU Center for Water and Air Quality as a Center of Excellence for Watershed Management…

The Environmental Protection Agency and the Florida A&M University recently signed a Memorandum of Understanding designating the university's Center for Water and Air Quality as a Center of Excellence for Watershed Management. This is the first Center of Excellence to be designated in Florida, the second HBCU, and the eighth in the Southeast. The third partner in this cooperative relationship is the Florida Department of Environmental Regulation. In this capacity the center will work closely with the EPA and DEP in reaching various stakeholders in Florida to enhance efficient watershed management practices. EPA's Regional Administrator, Region 4, **Gwendolyn Keyes Fleming,** signed the MOU on February 18, 2011 at the FAMU Campus.

Participation in the ARD Research Symposium…

Eleven faculty, staff and students from the Center participated in the 16th Association of Research Directors Symposium in Atlanta, Georgia, from April 9-13, 2011. Four papers and six posters were presented at the meeting. The titles of two student papers were:

Sharon M. Sapp, Graduate student: Characterization of Floristic Composition and Diversity of the Ephemeral Ponds in the Munson Sandhills, Apalachicola National Forest.

James Richardson, Undergraduate Student: Aquatic Insect Assemblages of Ephemeral Ponds in the Apalachicola National Forest, Florida.

Dr. Pescador Retires after 34 Years of Distinguished Service to FAMU and the Center…

Dr. Manuel L. Pescador, Professor of Entomology at Florida A&M University, is retiring effective June 30, 2011, after more than 34 years of dedicated teaching and research service to the University. He made a significant contribution to the "Fresh Water Stream Ecology."

Dr. Manuel L. Pescador, Professor of Entomology, retires after more than 34 years of dedicated service.

Dr. Pescador received a Ph.D. in Zoology from Florida State University. He is the author of more than 50 refereed research publications including co-authorship of two books on Aquatic Insects, *The Mayflies of Florida*, revised edition (1988), and *Ephemeroptera of South America* (2006). Dr. Pescador's accomplishments further include the discovery, description, and publication of 10 genera

and 25 species of mayflies that are new to science. Dr. Pescador is well known and recognized for his research on the systematics and ecology of aquatic insects of North Florida, and the evolution and biogeography of mayflies.

Center Seminar Series Attracts Many Stakeholders…

The Center seminar series continues to draw a number of faculty, staff and students from various disciplines at the University. In addition, many stakeholders take advantage of varied topics to learn more about issues related to water quantity and quality. In the past two years, the seminar sessions have given an opportunity to all participants to interact. During the spring 2011, the following presentations were made:

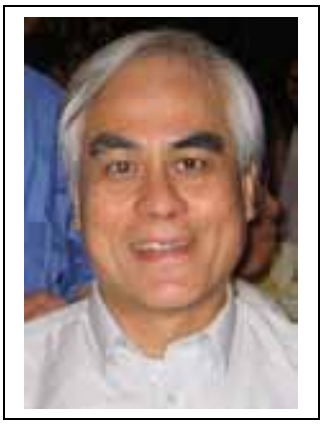
Dr. Sabine Grunwald, Professor and Director of Distance Education Program, Soil and Water Science Department, University of Florida, "Spatially-explicit soil carbon modeling in Florida", January 28, 2011.

Dr. Greg Jennings, Professor, North Carolina State University, "Advances in ecosystem restoration", February 18, 2011.

Dr. Mark Risse, Professor, University of Georgia, "Georgia's efforts to better manage water resources in the ACF basin", March 18, 2011.

Dr. Hsieh Appointed to the USDA Agricultural Air Quality Task Force…

Dr. Y. P. Hsieh of the Center has been appointed by Secretary Tom Vilsack of the US Department of Agriculture to serve a two-year term (2011-2012) on the Agricultural Air Quality Task Force. The Agricultural Air Quality Task Force has been created in accordance with Section 391 of the Federal Agriculture Improvement and Reform (FAIR) Act of 1996, which directs the Chief of the Natural Resources Conservation Service (NRCS), an agency of the United States Department of Agriculture, to establish a task force to address agricultural air quality issues. The first meeting of the Task Force will be held in Washington DC, June 8-10. Dr. Hsieh has been active in agricultural air quality research since 2004. His air quality research has been supported by the USDA/NRI Agricultural Air Quality Program and currently, the NSF Atmospheric Chemistry Program.



Dr. Y.P. Hsieh Appointed to the USDA Agricultural Air Quality Task Force.

Three Teaching and Research Proposals Submitted…

The Center faculty submitted three teaching and research proposals under the Capacity Building Grants Program of the National Institute of Food and Agriculture/USDA. The titles of the submitted proposals were:

Graduate Student Recruitment and Retention in Soil and Water Science at Florida A&M University (Teaching) - **Sunil Pancholy**, Principal Investigator.

Optimization of Best Management Practices to Enhance Water Quality in the Suwannee River Basin (Integrated Proposal) - **Katherine Milla**, Principal Investigator.

Determining the Fate and Transport of Antibiotic Resistant E. coli from Livestock Operations (Research) - **Margaret Gitau**, Principal Investigator.

FDACS Staff Conducts a Workshop on the Best Management Practices…

In early spring of this year, staff members from the Office of Agricultural Water Policy/FDACS conducted a workshop on the Best Management Practices Program. The workshop was attended by faculty, staff and students of the Center for Water and Air Quality along with several extension personnel. The topics covered included: History of the BMP Program, Benefits of the Program Participation, and Program Monitoring and Implementation Assurance. The center faculty continues to work with OAWP in looking at the BMPs as an effective way of reducing water pollution in the State.

Center Promotes Conservation and Stewardship of the Gulf of Mexico…

Through a grant funded by the Environmental Protection Agency (EPA), the Center has expanded its Gulf of Mexico Conservation and Stewardship Program. This program aims to increase the public's awareness and appreciation for the Gulf of Mexico and its resources through various activities. It addresses the strategic goals for environmental education outlined by EPA and the Gulf of Mexico Alliance (GOMA) to reach the "K to Gray" target audience. Educational and outreach activities include distributing educational materials about the Gulf, working with underserved and underrepresented populations and partnering with a select coastal community for a pilot project. A summer program for K-12 teachers will also be implemented. The FAMU Summer Teacher Coastal Stewardship Program will be held June 20, 2011 through July 1, 2011. Teachers will participate in a two-week extended field trip along the Gulf of Mexico. They will learn about the ecological and economic diversity of the Gulf of Mexico and develop inquiry-based lesson plans to be used by other teachers.

Kimberly Davis Joins the EPA/GOMA Funded Project…

Ms. Kimberly Davis has been hired as the Environmental Education Coordinator in the Center for Water and Air Quality for the EPA/ Gulf of Mexico Alliance Project at Florida A&M University. Ms. Davis received a B.S. in Biology and a M.S. in Agricultural Sciences with a specialization in Environmental Sciences from Florida A&M University. In this capacity, she coordinates education and outreach activities to promote stewardship and conservation of the Gulf of Mexico and its resources including the FAMU Summer Teacher Coastal Stewardship Program. She was an Environmental Protection Agency Graduate Fellow, which afforded her the opportunity to work at one of the EPA's national laboratories as a Research Biologist. Ms. Davis was employed by the Florida Division of Emergency Management for 10 years where she was the Lead State Environmental Scientist. She was responsible for managing the environmental and historic preservation review process and mitigation planning projects.

Ms. Kimberly Davis Joins the EPA/GOMA Education Project.

FAMU Educational Storm Water Treatment Facility…

Margaret W. Gitau, PhD

A storm water Best Management Practice (BMP) treatment facility (see figure) has been developed on the northeast side of the Benjamin Banneker (Tech C) Building on the Florida A&M University in Tallahassee, FL. The treatment system consists of a vegetated swale and an adjacent rain garden/bioretention area. The site is instrumented with data collection equipment including ISCO automatic water quality samplers, a rain gauge, and soil moisture and temperature sensors. In addition, we have developed educational materials for the site and also acquired related materials from various entities around Tallahassee. These materials are being disseminated to the community on campus and beyond. Starting this fall, the facility will be incorporated into two existing courses in the Biological and Agricultural Systems Engineering (BASE) curriculum: ABE 3212C Natural Resources Conservation Engineering, which includes basic hydrology, flood routing, and best management practices; and, ABE 4224 Non-point Pollution which covers the chemical and physical processes involved in the transport of sediment, nutrients, pesticides, and other potential pollutants in runoff.

Figure: The recently developed FAMU Storm Water Educational Facility.

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The *Water & Air Quality Newsletter* is published semi-annually by the Center for Water & Air Quality of the College of Engineering Sciences, Technology and Agriculture, Florida A & M University. We acknowledge continuing support received from **Natural Resources Conservation Service, U.S. Forest Service, CSREES/USDA, Florida Dept. of Agriculture, Florida Dept. Environmental Protection, NASA and others.**