



INTERNATIONAL PROGRAMS FROM THE CHAIR

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In this newsletter we highlight the Soil and Water Science Department's (SWSD) international programs. Our faculty are deeply involved in many international activities, and the department offers educational programs in several countries, including Brazil, China, Czech Republic, India, Mexico, Nigeria, and Uganda. The SWSD serves as home for international students from all over the world - currently, international students from 20 countries represent 40% of the graduate student pool - and many of these students go on to hold high-level positions in their countries at universities and in industry. Moreover, many international post doctoral fellows and visiting scientists find our department an ideal place to pursue their research and educational goals. A few examples of current activities are presented in this newsletter.

The department is currently sponsoring two international symposia: Wetland Biogeochemistry (March 20-23, 2005 in Baton Rouge, La), <http://conference.ifas.ufl.edu/wetlands> and Pedometrics (September 12-14, 2005, Naples, Florida) <http://conference.ifas.ufl.edu/pedometrics>. Mary Collins and Sabine Grunwald hold important offices in the International Union of Soil Science. Mary Collins was elected as Vice-Chairperson for Division 1 (Soil in Space and Time) and Sabine Grunwald was elected as Vice-Chairperson for the Commission 1.5 Pedometrics. Both of them will be actively involved in organizing sessions at the 18th World Congress of Soil Science to be held in Philadelphia (July 9-15, 2006). Vimala Nair was invited to serve as a member of the Scientific Committee at the International Congress on Silvopastoralism and Sustainable Management held April 18-24, 2004, in Lugo, Spain. In addition, faculty have made numerous presentations at international conferences and

symposia held in various countries including Belgium, Brazil, China, England, India, Ireland, Mexico, Netherlands, South Africa, and Thailand.

The SWSD is exploring opportunities to reach international students via distance education (DE) programs. Through UF/IFAS International Programs Office, a pilot project was initiated with the International Center for Tropical Agriculture (CIAT), Cali, Columbia.

Recently, Nick Comerford attended a workshop organized by CIAT to discuss the DE program in Environmental Science. Sabine Grunwald is scheduled to visit Nigeria and Uganda in June 2005 to determine DE opportunities in that part of the world. In addition, we are also exploring opportunities to offer a DE graduate program at the International Crops Research Institute for Semiarid Tropics (ICRISAT), Hyderabad, India, and at the Earth University, Costa Rica. Our focus with the international DE program has been on developing countries and we hope to assist these countries to increase the pool of trained professionals in soil, water, and environmental sciences. We request our international alumni to visit our web site and give us some feedback to enable us to develop linkages with your country for potential collaborations in teaching, research, and extension activities.

Here are a few highlights since the last newsletter:

- Kelly Morgan, Assistant Professor in Soil and Water Science, joined Southwest Florida REC, Immokalee, Florida. Kelly's research and extension activities will focus on nutrient management and water quality issues in agricultural watersheds.
- Mark Clark joined the department as an Assistant Professor in Wetlands and Water Quality. Mark's research and extension activities will focus on wetland restoration and water quality.
- Max Tepliski accepted our offer to join the department in April 2005 as an Assistant Professor of Microbial Ecology. His research will revolve around plant-microbial interactions in the rhizosphere in a wide range of ecosystems.
- Jim Davidson, Emeritus Vice President for Agriculture and Natural Resources (former professor of Soil Physics), was inducted into the Agricultural Hall of Fame in February 2005. Our hearty congratulations to Jim and his wife, Peg.

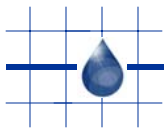
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MICROBIAL ECOLOGY SHORT COURSES IN INDIA

Andy Ogram and the Soil Microbial Ecology Laboratory have been developing ties with several institutions throughout India over the past few years. Andy has presented seminars at some of the prominent universities and government research institutions around India, including IIT Madras, Assam Agricultural University, Bangalore University, and the Institute for Microbial Technology.

In Summer 2003, Andy Ogram and Ashvini Chauhan, a post-doctoral research fellow, conducted a workshop on molecular methods in microbial ecology at Bangalore University, funded by UF/IFAS. In 2004, Ogram was awarded an American Society for Microbiology Indo-US Professorship for 2004. He and Hector Castro, a post-doctoral fellow, will develop and teach a special workshop on molecular methods in biodegradation research. This workshop will be held in March, 2005, at the Institute of Microbial Technology (IMTECH), in Chandigarh.

Ogram returned from Chandigarh in September, where he and Dr. R. Charudattan of Plant Pathology established a Memorandum of Understanding between the University of Florida and IMTECH. IMTECH (<http://www.imtech.res.in>) is a world-class microbiology research facility, whose faculty is actively engaged in cutting edge research in environmental microbiology, microbial physiology and fermentation, and vaccine development. It is hoped that close ties with IMTECH will result in development of projects within India, and the recruitment of high quality students and postdoctoral associates. Our primary contact at IMTECH, Dr. Rakesh K. Jain, is appointed as a courtesy professor in the SWSD. For additional details contact Andy Ogram at avo@ifas.ufl.edu.

FOREST SOILS BIOGEOCHEMISTRY PROGRAM IN BRAZIL AND MEXICO



The international aspect of the Forest Soils Biogeochemistry Program in the SWSD covers both teaching and research. Nick Comerford directs a FIPSE- (*Fund for the Improvement of Post Secondary Education - US Department of Education*) CAPES (*Coordenação de Aperfeiçoamento de Pessoal de Nível Superior - Brazil's Ministry of Education*) undergraduate student exchange program between the U.S. and Brazil in the area of natural resource management. Currently we have four U.S. students in Brazil with another four

arriving in spring 2005. The purpose of this program is to develop a group of professionals with international experience, language proficiency and an appreciation for the culture of other countries.

Nick Comerford has also taught in Brazilian universities over the past eight years. He has offered his graduate course "Soil Nutrient Bioavailability" at the Federal University of Viçosa (1987), the Federal University of Bahia (2001) and the State University of Santa Cruz (2004). The first two teaching opportunities were funded by the Brazilian federal agencies that fund research and teaching. The latter was made possible when Comerford was in Brazil as a Fulbright Fellow. He also participates as a lecturer in Agriculture in the Tropics program offered at the National Institute of Amazonian Research in Manaus (INPA).

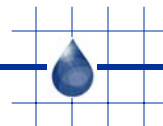
On the research side, Comerford is engaged in both Brazil and Mexico. In Brazil he continues to work with faculty at the Federal Universities of Viçosa and Bahia, as well as INPA and the federal research agency responsible for the development of the cacao. Current research ranges from soil chemical diversity and its influence on P cycling in native forest and cacao agroforestry systems to soil carbon sequestering in the Mata Atlântica; Alfisol development under tropical conditions to the soil fertility of Amazonian Dark Earth soils. Kimberly Epps, a Ph.D. candidate in the Forest Soils program, will be spending the next 12 months in Bahia, Brazil investigating the chemical diversity of organic carbon inputs.



In Mexico, Comerford works with CICY (*Centro de Investigación Científica de Yucatán*) the state research organization of the Yucatan. Currently he is on the committee of two students who are working on soil root-soil nutrient uptake modeling topics. Lisette Borges, a Ph.D. candidate from CICY, recently spent several months in the Forest Soils laboratory to learn methods and gain experience in the U.S. For additional details on Forest Soil Biogeochemistry Program contact Nick Comerford at nbc@ifas.ufl.edu.

AGROFORESTRY-ENVIRONMENTAL MANAGEMENT

Vimala Nair served as a member of the Scientific Committee at the International Congress on Silvopastoralism and Sustainable Management held in Lugo, Spain in April 2004. Nair was also a member of the Organizing Committee for the 1st World Congress of Agroforestry held June 27 to July 2, 2004, in Orlando, FL (<http://conference.ifas.ufl.edu/wca>). The Congress, organized by UF/IFAS (see Myakka Newsletter, Volume 3, No. 1) and supported by 25 organizations from four continents was attended by nearly 600 participants from 82 countries, including prominent international scientists such as Nobel Laureate Norman Borlaug. In addition to volunteer presentations at the Congress, Nair was the chair of the session on Environmental Amelioration, and a speaker at the pre-Congress Workshop. SWSD graduate students Myrlene Chrysostome, Manohardeep Josan, and Daniel Herrera took part as Congress volunteers and gained valuable experience by interacting with prominent international scientists.



INTERNATIONAL VISITORS AT THE UF/IFAS ANALYTICAL RESEARCH AND EXTENSION SOIL TESTING LABORATORIES, GAINESVILLE



The UF/IFAS Analytical Research and Extension Soil Testing Laboratories in SWSD have hosted visitors from three countries during December, 2004 and January 2005.

A ten-member delegation of high ranking government and academic officials from Iraq visited the laboratories on December 13, 2004. The group toured the laboratory facilities and discussed nutrient recommendations, water quality, QA program, equipment, automation and computer database. The delegation requested that Director Rao Mylavarapu help them to set up a successful soil testing program and research labs in Iraq. As a follow-up, a recommendation will be submitted by Mylavarapu to the appropriate authorities at a later date.

Michael Chetty, Manager, Research Laboratories at the Institute of Commercial Forestry Research in association with University of Natal, South Africa, spent a week at the ARL/ESTL from January 24-28, 2005. During his visit, Chetty discussed the analytical methods, QA/QC protocols equipment and priorities with Mylavarapu and possible collaboration in the areas of method development and instrument optimization.

Mr. Yu Hongjun, a Chinese scientist working on vegetable crop nutrition at the Chinese Academy of Sciences in Beijing, spent a week at the soil testing laboratory in January 2005. He was provided with information on training in soil testing procedures, test interpretations and nutrient recommendations and automation through computerization of operations by Mylavarapu and other laboratory personnel.

HUGH POPENOE FOUR DECADES OF INTERNATIONAL ACTIVITIES



Hugh Popenoe joined the UF Soils Department in 1960 and was awarded "Professor of the Year in Agriculture" at UF in 1964. For the last 45 years Popenoe was involved in various international activities. After directing the Caribbean Research Program, he was appointed Director of the Center for Tropical Agriculture in 1965 and Director of International

Programs in Agriculture in 1966. In addition he initiated and was Director of the Florida Sea Grant College from 1971 to 1978. At the national level he chaired the Joint Committee of Agricultural Research and Development of the Board of International Food and Development. He also served on the Board of Science and Development of the National Research Council (NRC) and chaired the Advisory Committee of Technology Innovation. Hugh Popenoe was the chairman or committee member of 16 NRC publications. He was also a member of the NSF International Advisory Committee. Popenoe is a founder and current president of the American Water Buffalo Association. Internationally, he was a trustee of the International Foundation for Science. He was a founding board member of the Organization for Tropical Studies and is a past president and current board member of Zamorano, Honduras. Popenoe has traveled and worked in most of the tropical countries of Asia, Africa and Latin America. He is a fellow of the Soil Science Society of America, the American Society of Agronomy, American Association for the Advancement of Science, and American Geographical Society. He has been awarded the Science Pioneer Prize of the Egyptian Veterinary Association for Buffalo Development. He was a Visiting Lecturer on Tropical Public Health at the Harvard School of Public Health for four years. As Emeritus Professor in SWSD he still teaches graduate courses. Hugh Popenoe continues to be a great asset to the SWSD, IFAS, and UF.



Mary Collins named President-Elect of the Soil Science Society of America

Professor Mary Collins is elected the President-Elect of the Soil Science Society of America (SSSA). She is the first woman president-elect of the SSSA, which is the home for over 5,700 soil science professionals throughout the world. Mary Collins assumed the duties as President-Elect of the SSSA in November 2004. The primary purpose of the Society is to advance the discipline and practice of soil science by acquiring and disseminating information about soils in relation to crop production, environmental quality, ecosystem sustainability, bioremediation, waste management and recycling, water quality, and wise land use. Collins is a Professor of Environmental Pedology and Undergraduate Coordinator in the SWSD, UF/IFAS. Collins has served as an officer in the International Union of Soil Science as well as a member of the National Academies – National Committee for Soil Science.

Students from the Agronomy/Soils Club together with faculty coordinators from Soil and Water Science (James Bonczek) and Agronomy (Lori Snyder) departments recently conducted soil characterization of the property surrounding the UF president's residence slated for horticultural gardens. The ultimate goal of the effort is to provide the basis for an overall management plan for the area which will be presented at the University President's home in celebration of Ag Week in March.

Soil samples will be analyzed at the UF-IFAS Extension Soil Testing Laboratory to determine fertilizer recommendations. This information will provide a basis for collaboration between the Agronomy/Soils Club and the Environmental Horticulture Club to assemble a management plan for these areas. This effort was a component of a demonstration project initiated by CALS Associate Dean, Jane Luzar, to foster cooperation among student organizations in CALS and to highlight student skills and knowledge.



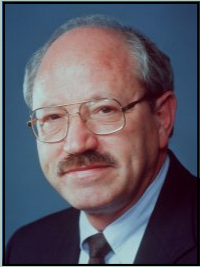
SOIL AND WATER SCIENCE SHORT COURSES

Hydric Soils (W. Hurt) This exclusive training program focuses on the interrelations of hydrology and hydric soils and how to distinguish hydric soils from nonhydric soils. This course is offered four times a year. For additional information contact Wade Hurt at wade_hurt@ifas.ufl.edu.

Soils for Professionals (Mary Collins and James Bonczek) is scheduled for offering during June 9-10, 2005. For additional information contact Mary Collins at mec@ifas.ufl.edu.

Soil Microbiology- Arbuscular Mycorrhizal Fungi (A. Al Agley) is scheduled for offering during July 25-27, 2005. For additional information contact Abid Al Agley at aaag@ufl.edu.

FACULTY, STAFF AND STUDENTS

Jim Davidson is inducted into the Agricultural Hall of Fame

Jim Davidson (former Professor of Soil Physics) and Emeritus Vice President of Agriculture and Natural Resources, was inducted into the Agricultural Hall of Fame in 2005 for his outstanding contributions as a teacher, researcher, and a leader for agricultural and natural resource programs. Davidson came to UF/IFAS in 1972, as a visiting associate professor and joined the faculty as a soil science professor in 1974. From 1979 to 1992, Davidson served as assistant dean and dean for research for UF/IFAS. As dean for research, he was responsible for UF/IFAS research programs in 23 academic departments and 13 research and education centers throughout Florida. His research focused on the movement of pesticides and other organic contaminants through the soil. He is a fellow of the Soil Science Society of America, the American Society of Agronomy and is listed in American Men of Sciences; Men of Achievement; Who's Who in the South; Who's Who in Science and Engineering. Davidson was awarded the Distinguished Service Award of the Soil Science Society of America. He has served on national committees investigating groundwater quality, including a committee of the U.S. Environmental Protection Agency and co-chaired the National Research Council committee on the Everglades. Congratulations to Jim and Peg and thanks for your outstanding contributions to SWSD and to UF/IFAS.

GRADUATED STUDENTS FALL 2004

Steve Barlow, MS, *Advisor*, M. Clark
Michael Miyittah, MS, *Advisor*, G. O'Connor
Aarthy Sabesan, MS, *Advisor*, S. Grunwald

NEW STUDENTS FALL 2004

Martin Anderson, MS, *Advisor*, J. Sickman
Darren Bishop, MS, *Advisor*, W. Harris
Christopher Chilton, MS, *Advisor*, M. Collins
Cecilia Concha, MS, *Advisor*, M. Clark
Adrienne Frisbee, MS, *Advisor*, K. Reddy
Kemal Gokkaya, PhD, *Advisor*, K. Reddy
Elizabeth Hodges, PhD, *Advisor*, G.O'Connor
Angelique Keppler, PhD, *Advisor*, K. Reddy
Sylvia Lang, PhD, *Advisor*, M. Clark
Melissa Martin, MS, *Advisor*, J. Sickman
Henrique Mayer, MS, *Advisor*, Y. Li
Travis Richardson, MS, *Advisor*, P. Nkedi-Kizza
Jason Smith, PhD, *Advisor*, A. Ogram

AWARDS

The following have been recognized for their accomplishments. Congratulations!

Carlisle Scholarship - Manohardeep Josan

Polston Scholarship - Isabela Torres

Robertson Scholarship - Sampson Agyin-Birikorang

F.B. Smith Scholarship - Deborah Duda

SWSD Ph.D. Award for Excellence in Graduate Studies-
Nadine Kabengi

Outstanding Undergraduates-
Victoria Gardner and Leanna Woods

SWSD Superior Accomplishment-
Cheryl Combs, Kelly Lewis, Pam Marlin and Gavin Wilson

SWSD Outstanding Teacher/Advisor of the Year -
Mark Clark

New Faculty in Focus...

**Kelly Morgan, Assistant Professor, Nutrient Management, Southwest Florida REC, Immokalee, FL**

Kelly received his Ph.D. from the University of Florida in 2004. Kelly's research will include model verification and validation, adaptation of the model to citrus production on bedded Spodosols, and the expansion of the model to include vegetable crops and sand-land sugarcane production. Kelly Morgan's extension program will include providing growers of Florida with science-based information on improved soil fertility and water management methods and the implementation of best management practices that sustain yields while protecting water quality. Prior to joining the faculty, Morgan was the Scientific Research Manager of 120 acres of citrus research plots at the Water Conservation II reclaimed water

**Mark Clark, Assistant Professor, Wetlands and Water Quality**

Mark works in the area of wetlands and water quality. He received his Ph.D. from the University of Florida in 2000 and has held postdoctoral and non-tenure track faculty positions within the SWSD prior to his selection to this tenure track position. Clark's research will focus on wetland ecology and water quality. Clark's extension activities include: educating Floridians about wetlands (<http://wetlandextension.ifas.ufl.edu>), facilitating a linkage between agricultural interest and funding sources for wetland enhancement (<http://wer.ifas.ufl.edu>) and integrating wetlands into developed urban and agricultural landscapes to improve water quality. The UF Clean Water Campaign is one example of outreach and education activities being conducted, in this case, at the University of Florida Campus (<http://campuswaterquality.ifas.ufl.edu>). In addition to research and extension activities Mark Clark also teaches two courses titled: Wetlands (undergraduate level) and Wetlands and Water Quality (undergraduate and graduate levels).

ALUMNI UPDATE

We'd love to hear from you! Please complete and return this form or send your information via email.

Name: _____

Degree(s) and Year(s): BS(_____) MS(_____) PhD(_____) _____

Home Address: _____

Email: _____ Phone Number: _____

Position: _____

Employer: _____

News to share: _____

Return to: Soil and Water Science Newsletter
106 Newell Hall
University of Florida
Gainesville, Florida 32611

OR

Email: Pam Marlin at pem@ufl.edu

Soil and Water Science Department University of Florida – IFAS

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