# UF FLORIDA **IFAS**



**VOLUME 12** NUMBER 1

**SPRING 2012** 

# Grant-Funded Research Faculty



# From the Chair...

The Soil and Water Science (SWS) research programs are supported by several nontenure research faculty who meet key research needs currently not covered by the tenure-track faculty. At present, the department hosts eight faculty members of varying ranks: Assistant-In, Research Assistant Professor, Research Associate Professor, and Research Professor. These faculty members offer programs in thrust areas including: 1) Management of nutrients, pesticides, and water; 2) Carbon dynamics and ecosystem services; and 3) Wetlands and aquatic systems. Salaries of these faculty are either fully or partly supported by grants and contracts generated by them. These faculty members are place-bound because of family commitments to stay in the region and /or have spouses who are currently employed by UF. The total number of tenure-track faculty in Gainesville decreased by over 30% during the past decade. Although, some of the research needs are met by faculty located at RECs, the non-tenure track research faculty filled in a major part of critical needs in the department and UF-IFAS. At present, 30% of the departmental research is supported by the non-tenured faculty. In the current economic environment of limited resources, this model of maintaining research needs is not sustainable. In this newsletter we present a brief description of their research programs and their roles in addressing soil and water issues in key areas not currently covered by tenure track faculty in the department.

RID

Alumni: We want to include you in our newsletters! Please provide highlights of your current activities with a photograph to Michael Sisk at mjsisk@ufl.edu.

**finch** Printed on Finch Fine Color Copy paper graciously donated by Finch Paper.

Dr. K. Ramesh Reddy, Chair, Soil and Water Science Department, 106 Newell Hall, Box 110510, University of Florida, Gainesville, Florida 32611. Telephone 352-392-1803, Fax 352-392-3399, Email: krr@ufl.edu

# contents

Massimiliano Marvasi, Research Assistant Professor: Microbial Ecology Mengsheng Gao, Assistant-In: Microbial Ecology Ann Wilkie, Research Associate Professor: Bioenergy and Sustainable Technology Kanika Sharma Inglett, Research Assistant Professor: Environmental Microbiology Todd Osborne, Research Assistant Professor: Biogeochemistry John Thomas, Research Assistant Professor: Applied Environmental Soil Microbiology/Organic Chemistry Rex Ellis, Research Assistant Professor: Subaqueous Pedology Vimala Nair, Research Professor: Environmental Soil Chemistry	:
	:
	!
	,
	•
	;
Faculty, Staff, and Students	1
EDITORS:	
Susan Curry	
scurry@ufl.edu	
Dr. Vimala Nair	
vdn@ufl.edu	

**Michael Sisk** mjsisk@ufl.edu

# http://soils.ifas.ufl.edu



### Massimiliano Marvasi, Research Assistant Professor: Microbial Ecology



Massimiliano Marvasi joined the Soil and Water Science Department as a research faculty member in Max Teplitski's laboratory in February 2012 and he is based in the new Cancer and Genetics Research Complex. Marvasi is originally from Florence, Italy. He holds a MS in Molecular Biology and PhD in Microbiology both from the University of Florence,

Italy. Marvasis's interests range from host-pathogen interactions to microbiology applied to the conservation of cultural heritages.

Marvasi's research at UF is focused on *Salmonella*-tomato interaction. In fruits of tomatoes of different cultivars *Salmonella* can reach populations up to 10<sup>6</sup> cells gram<sup>-1</sup> of fruit tissue. Such impressive growth, without eliciting any symptoms in the fruits, is one of the causes of several outbreaks of tomato-associated gastroenteritis in the U.S. Understanding the genetic and physiological basis of this interaction during post-harvest contamination is one of the Marvasis's goals. To reach this goal several different strategies are employed. To study the *Salmonella* metabolic functions and genes required for colonization and persistence within tomato fruits, he is studying differential regulation of *Salmonella* tomato-specific genes during tomato infections, including a screening of bacterial mutants.

Another interesting aspect of the Marvasi's research is the study of the *Salmonella* transcriptome profiling using a deep-sequencing technology: the *RNA-seq*. Through RNA -seq, it can be seen how the microbial transcriptome is composed and the genes expression can be measured in *Salmonella* during interaction with the tomato fruit.

Marvasis's research interests also aim to increase the sustainability of the U.S. tomato agriculture. For example, in collaboration with Hochmuth and Teplitski, Marvasi is working on optimization of the irrigation and fertilization parameters to reduce susceptibility of tomatoes and peppers to post-harvest contamination, pathogen transfer and proliferation of *Salmonella*. Our long-term goal is to decrease the produce-associated outbreaks of salmonellosis. Finally, from the ecology point of view, the studies on *Salmonella*-tomato interactions reveal that the adaptation of *Salmonella* to different environments, besides the human body, is more complex than previously thought.

For additional information about Marvasi's research program contact him at: <a href="mailto:mmarvasi@ufl.edu">mmarvasi@ufl.edu</a>

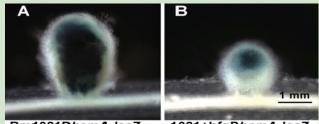
# Mengsheng Gao, Assistant in: Microbial Ecology

Mengsheng Gao joined Max Teplitski's laboratory in 2006. She conducts research on the symbiosis between *Rhizobium* (also *Sinorhizobium*) *meliloti* and its host plants Alfalfa and *Medicago truncatula*. The rhizobial cells can grow in soil, but when they encounter host roots, the rhizobial cells invade to form root nodules. Inside



Mengsheng pictured on the left.

nodules, the rhizobial cells convert atmospheric dinitrogen into ammonia that allows the plants to produce protein and permits robust plant growth without added nitrogen fertilizer.



Rm1021PhemA-lacZ

1021∆hfqP*hemA-lacZ* 

Dark-field images of X-gal stained, 18-day old M. truncatula nodules elicited by S. meliloti bacteria tagged with PhemA-lacZ construct. Nodules elicited by the wild-type bacteria were normal (A) whereas nodules elicited by the bacteria lacking the hfq gene were substantially smaller in size (B). Note that the PhemA-lacZ construct produces a beta-galactosidase that generates a blue precipitate near the bacterial cells in the presence of substrate X-gal, which allows visualizing rhizobia inside nodular tissues as blue areas in (A) and (B).

The symbiosis between the rhizobial cells and the plants is complex. It requires global regulation of rhizobial gene expression. The symbiosis is defective if the rhizobium carries mutations in *hfq*, a gene encoding a global regulator of bacterial gene expression (*Mol. Plant-Microbe Interact. 2010 23:355-365*). We use genetics and cell biological methods to study how the Hfq-mediated gene regulation occurs under influence of plants and how Hfq-mediated regulation influences nodule development.

For additional information about Gao's research program contact her at: <u>msgao@ufl.edu</u>

## Ann Wilkie, Research Associate Professor: Bioenergy and Sustainable Technology

Ann Wilkie's area of specialization is applied and environmental microbiology, with particular emphasis on bioenergy and sustainable technology. Her program includes research on: 1) the practical application of anaerobic digestion for waste treatment and renewable energy production from biomass and organic residues, including livestock waste, bioethanol and biodiesel by-products, and other waste streams, and 2) phycoremediation of wastewaters using indigenous algae.

Current projects include diverting food waste from landfills for energy and fertilizer production, cultivating algae for bioremediation of landfill leachate and as a bioenergy feedstock, and growing grass crops for biogas production.

Wilkie's accomplishments in anaerobic digestion include research on biofilms, the impact of micronutrients on the anaerobic digestion process, and the development of a unique fixed-film bioreactor design that increases microbial activity, allowing higher volumes of wastewater to be processed much faster. In 2006, Wilkie received the *Sustainable Florida Best Practices Award* from the Council for Sustainable Florida for her innovative work on biogas technology.



Portable food waste biodigester.

Ann Wilkie is an internationally recognized expert in bioenergy and sustainable technology. She holds two US patents and three international patents for her fixed-film digestion process, and is the author of numerous research publications and reports. She is a member of the Editorial Board of the journal *Biomass and Bioenergy* and is a frequent guest speaker at national and international conferences dealing with biogas and biofuels, climate change and sustainability issues. In 2008, Wilkie received the *Florida Energy Achievement Award*, presented by the Florida Solar Energy Center (FSEC), for her extensive work in alternative energy and her leadership in promoting awareness and understanding of renewable energy and sustainable practices in the State of Florida.



Cultivation of algae on landfill leachate.

Wilkie's research program has been funded from a variety of sources including industry, commodity groups, the State of Florida (FDEP, FDACS), and Federal agencies such as EPA. In 2010, her research team received an *Honorable Mention Award* from EPA at the *P3: People, Prosperity and the Planet - Student Design Competition for Sustainability* held in Washington, DC, for their project, Eco-Energy Demonstration Model: Anaerobic Digestion, Algae and Energy Prosperity.

Ann Wilkie teaches a course on bioenergy and sustainable technology at undergraduate and graduate level (SWS4932/SWS6932). She mentors and advises graduate students (PhD and MS) and serves as an advisor to undergraduate students from the UF and CALS Honors Programs, University Scholars and FAES Summer Research Interns. Since 2006, Wilkie has directed the UF/IFAS Bioenergy Summer School, a 12-week internship program designed to introduce undergraduates to bioenergy research and foster their interest in future graduate studies. Ann Wilkie also serves as a faculty mentor with the UF Chapter of Engineers Without Borders. In 2011, she received the *Distinguished Mentor of Undergraduate Research Award* for exceptional mentoring and advising of undergraduate student research, presented by Florida Blue Key. Other awards include the 2008 Student Organization Advisor of the Year Award for her work with the UF BioEnergy and Sustainable Technology Society and an Honorable Mention - 2010 Sustainable Solutions Award from the UF Office of Sustainability for her efforts in establishing a student compost cooperative.

For further information on Ann Wilkie's research program, visit her website, *Biogas - A Renewable Biofuel*, at: <u>http://biogas.ifas.ufl.edu</u> or contact Ann Wilkie at <u>acwilkie@ufl.edu</u>.



Kanika Sharma Inglett: Florida Everglades (WCA 2A region)

### Kanika Sharma Inglett, Research Assistant Professor: Environmental Microbiology

**Kanika Inglett** joined the Wetland Biogeochemistry Laboratory as a Research Assistant Professor in 2011.

The functioning of an ecosystem is much like the workings of a clock. We appreciate the clock for its usefulness, but do not fully understand what makes it tick. As a microbiologist who collaborates with biogeochemists, Kanika Inglett's interest lies in understanding the small processes that make an ecosystem 'tick'.

The primary goal of research in her lab is to understand the *wheres*, the *whos*, and the *hows* of microbial regulation of carbon and nutrient cycling in ecosystems. Her past and current research is focused on a variety of topics including: 1) investigating shifts in microbial structure and function in response to landuse change and restoration 2) microbial activities involved in greenhouse gas production, 3) microbial enzymes as indicators of nutrient cycling, 4) understanding the response of microbial communities to climate change in systems from arctic to the tropics, and 5) biotransformation of contaminants (inorganic and organic pollutants) in the environment.

Her research integrates the molecular, biochemical, and theoretical approaches to yield new insights on the role of microbes within an ecosystem. Currently, her lab employs the use of signature lipid biomarkers (SLB) to study the microbial community structure and composition, fluorescence microscopy and fluorescence methodology to study the kinetics of extracellular enzyme activities, and lab and field measurements of greenhouse gas production and emissions. These approaches have been employed in number of systems including sites from Alaska, Siberia and numerous sites throughout Florida. Her group is also beginning a study of the effects of oil contamination from the Deep Water Horizon spill in the Gulf of Mexico.

In these studies she has advised, co-advised, or was a mentor of more than a dozen graduate students, three undergraduates and one high school student. She also teaches a variety of classes online versions of SWS 6366 Biodegradation and bioremediation (with J Thomas), SWS 6448 Biogeochemistry of Wetlands (with KR Reddy), SWS 6932 Math for Soil Scientists (starting this fall) and on-campus classes such as SWS 6932 Methods in Biogeochemical Techniques and SWS 6932 *Colloquium in biogeochemistry*, a student- led journal club to develop critical scientific thinking and communication skills of our graduate students.

# Congratulations! Spring 2012 Graduates

PhD Dakshina Medha Kadiyala (Li & Mylavarapu) MS Ellen Bailey (P. Inglett) Jacob Butterworth (Nkedi-Kizza) Kimberleigh Cayse (P. Inglett) John Gum (Shober) Kathleen Lockhart (Grunwald) William Mahler (Ellis) Sarah Mixon (Fitz) Bryce Van Dam (Osborne) BS Andrew Brestel (SLS) Ashley Phillips (SLS)

#### BS

Alexandra Rozin (SLS) Ashlyn Smith-Sawka (SLS) Leland Alston (IS-EMANR) Ellen Cochrane (IS-EMANR) Regina Conley (IS-EMANR) Debra Flinn (IS-EMANR) Jenny Hoover (IS-EMANR) Robert Laur (IS-EMANR) Dustin Pillow (IS-EMANR) Joseph Register (IS-EMANR) Paula Staples (IS-EMANR) Kendra Thomason (IS-EMANR)

# Todd Osborne, Research Assistant Professor: Biogeochemistry

**Todd Osborne** joined the Wetland Biogeochemistry Laboratory spring of 2006 as a Research Assistant Professor, specializing in biogeochemistry of wetlands and aquatic systems. Application of interdisciplinary science is at the core of Osborne's research program, which focuses on wetland and aquatic ecosystem restoration. The world's largest wetland restoration effort to date, taking place in the Florida Everglades, is an incredible opportunity to showcase the results of interdisciplinary efforts in restoration science.

The Everglades restoration effort is a nexus of ecology, hydrology, biology and chemistry applied to restoration of a diverse and unique ecosystem, and as such, is a central focus of Osborne's research program.



Soil and water quality sampling in Everglades National Park. (photo by T. Jones)



Selecting field study sites via helicopter in Loxahatchee NWR (photo by D. Genchi)

A large portion of his research is based on

mesocosm and field scale studies which aim to define controls of biogeochemical cycles at a landscape or ecosystem scale. A recent example is work with the role of wildfire in modulating phosphorus biogeochemical cycling across the Everglades and Big Cypress landscapes. This work in collaboration with departmental and agency colleagues has resulted in a special session at an upcoming international meeting and special journal issue focusing on fire effects in wetland science.

During his time in the SWSD, Osborne has authored or co-authored 24 refereed journal articles, chaired 8 MS student committees and served on an additional 16 MS and 8 doctoral committees within the College of Agriculture and Life Sciences and the College of Engineering. He has also mentored an undergraduate student in the University Scholars who studied the effects of sea level rise (salinity) on

organic soils structure. Todd has garnered competitive research funding from both state and federal sources in excess of \$5.9 million in support of 28 individual projects covering diverse topics such as restoration of seagrass and mangrove habitats, the Kissimmee River floodplain, marshes of the St. Johns River, and numerous issues in the Everglades.

An important aspect of Todd Osborne's activities is that of Everglades Liaison between IFAS researchers/programs and state and federal funding agencies working in the Everglades arena. This position was created by the IFAS Dean of Research in 2010 and in this capacity, Osborne has been instrumental in securing over \$1.4M in research awards to IFAS faculty.

Todd Osborne teaches a summer course on environmental sampling techniques through the distance education program and also serves as a field safety instructor for SWS students.

For additional information about Osborne's research and teaching program contact him at: osbornet@ufl.edu

# Welcome Incoming Students Summer 2012!

MS

Christopher Clingensmith (Grunwald) David Goldstein (Wright) Kayla Lovely (Toor) Virginia Rigdon (Wright) Pamela Vaughn (Wright) Jose Eduardo Villalobos Leandro (Morgan) Erick Bennett (Curry) Margiet Canler (Curry) Juan Quesada (Bonczek) Michael Rodeman (Bonczek) Shima Suzuki (Bonczek)

BS

## John Thomas, Research Assistant Professor: Applied Environmental Soil Microbiology/Organic Chemistry

John Thomas joined the SWSD as Research Assistant Professor in 2006. The research programs under the direction of John Thomas cover: 1) fate and transport of organic chemicals, and 2) biodegradation and bioremediation of environmental contaminants. Current projects related to the first topic involve researching alternatives to methyl bromide, a fumigant that is being phased out due ozone-depletion concerns. USDA funding financed the study of pre-crop fumigants that are carbonated, applied to the sub-surface soil, and subsequently covered with a totally impermeable plastic film.

The carbonation of the fumigant is a novel approach that allows the active ingredients to disperse further and deeper than by conventional methods. Consequently, less fumigant is required to achieve the same efficacy. Less fumigant results in not only less expense to the grower, but less potential harm to the environment.



John Thomas sampling the sub-surface soil pore air for pre-crop fumigants

The second branch of research concerns bioremediation of a lake-side environment contaminated with organochlorine chemicals. The toxic organic chemical, DDT, was last applied to crops forty years ago, yet it and its toxic degradation products, DDE and DDD, remain in the soil. Previous studies funded by the St. Johns River Water Management District revealed that wood-rot fungi that are capable of degrading these contaminants are present and native to the region. Research is currently underway to elucidate the inhibiting factors and what may be done to stimulate the degradation rate of these organic contaminants.

Although his appointment is 100% research on organic contaminants, Thomas teaches (with Kanika Inglett) a distance education course, "Biodegradation and Bioremediation", every spring semester. Thomas has detailed his research in a career total of 108 publications that include 3 book chapters, 27 peer-reviewed manuscripts, 70 agency reports, and 8 proceedings' abstracts. As principle investigator, he has accrued more than \$1.7 million dollars in grants and contracts over the last five years. The research he has conducted has recently led to a patent disclosure application to the U.F. Office of Technology. For additional information about Thomas's research and teaching program contact him at: Thomas@ufl.edu

# **Rex Ellis, Research Assistant Professor: Subaqueous Pedology**

**Rex Ellis** joined the department as a Research Assistant Professor in 2006. His current funded research includes subaqueous pedological investigations of near -shore marine and estuarine ecosystems. Overarching research objective is to develop soil/landscape relationship models while generating knowledge to support new interpretations of subaqueous soil map units. Subjects of fundable interest include: seagrasses, mangroves, subaqueous soil resources, mitigation for estuarine damage, habitat analysis and modeling, and shellfish aquiculture. Other complimentary research projects are supported by leveraged resources to pursue terrestrial pedological interests such as improving soil interpretations (e.g., depth to seasonal high saturation for septic applications), refining soil/landscape relationships (e.g., drainage patterns, carbon sequestration via spodic horizons, spatial patterns of hydric soil

carbon sequestration via spodic horizons, spatial patterns of hydric soil indicators), and improving wetland quantification/delineation both on-site and off-site. All projects are enhanced via Geographic Information Systems (GIS),



Subaqueous soil study with hard clam (Mercinaria mercinaria) aquaculture extension in Cedar Key FL

Remote Sensing (RS), and a geostatistical approach which incorporates geography into the analyses. Cutting edge geomatic technologies such as differential global positioning systems (dGPS), real-time kinematics (RTK), total stations, and Light Detecting and Ranging (LIDAR) are used to incorporate a higher precision of landscape modeling and visualization to improve GIS analysis in the research projects. During his career at UF, Rex obtained approximately \$1.6 million in grants and contracts.

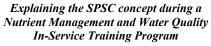
Ellis teaches undergraduate and graduate courses focused on pedological processes and soil interpretation. He provides undergraduate leadership by collaborating on capstone, University Scholars, and honors thesis projects. He creates independent study opportunities for qualified students seeking to customize their curriculum and teaches Florida pedological calibration short courses in support of the SSSA/FAESS Florida Soil Certification program. For additional information about Ellis's research and teaching program contact him at: <u>rexellis@ufl.edu</u>

## Vimala Nair, Research Professor: Environmental Soil Chemistry

**Vimala Nair** joined the SWSD as a research faculty and moved through the ranks to Full Professor in 2010. Her research programs are related to: 1) fate and transport of phosphorus (P) from agricultural lands, and water quality implications of animal-based agriculture, and 2) nutrient management and carbon (C) sequestration in agroforestry systems. She was the first to show applicability of the threshold P saturation ratio (PSR) to Florida soils. The PSR is a key component of a concept called the Soil P Storage Capacity (SPSC), originally formulated by Willie Harris. Nair has played a major role in documenting the efficacy of the SPSC, including its extension to wetland soils. Thus, we now have a procedure for accurately predicting environmentally safe phosphorus storage in sandy soils that would minimize the risk of P lost via runoff and/or leaching at a watershed scale; the concept and its applicability are explained in an EDIS series titled *Soil Phosphorus Storage Capacity (SPSC) for Phosphorus Risk Assessment and Management*.

Nair's recent work on soil carbon sequestration has resulted in more than a dozen peer-reviewed publications since 2008, with graduate students and visiting scholars under her supervision as the lead authors in many of them. An important aspect of her work in this field includes the use of stable C isotope signatures in whole- and fractionated soil to determine if the C source in a soil is a tree that follows the C<sub>3</sub> photosynthetic pathway or a grass (C<sub>4</sub> pathway). This work has tremendous relevance to ecology and agroforestry systems.







At a field site in Spain with host, Dr. Mosquera Losada planning C sequestration and phosphorus management studies.

Vimala Nair's research has been supported by competitive federal and state grants, totaling more than \$5 million, during the past 10 years. Her

publications include: 45 journal articles, 12 book chapters, 22 reports to funding agencies, and more than a 100 abstracts. Her expertise in P management and C sequestration has earned her invitations for presentations at a number of overseas institutions/international meetings: Australia, Brazil, China, India, and Spain, in addition to various US locations. She is a courtesy faculty member at the University of Santiago de Compostela, Spain.

Her graduate students have received accolades at several competitions at local, state, national and international professional meetings. In 2005, Vimala Nair was awarded the SWSD's Teacher/Advisor of the year award, a testimony of her commitment and success in mentoring graduate students.

Vimala Nair has served as an Associate Editor (AE) and Member of the Editorial Board for the *Journal of Environmental Quality (JEQ)* for two terms (1999 - 2004) for which she was recognized as the 2003 Outstanding Associate Editor. She was a Guest AE of *JEQ* for a special collection of papers on *Agroforestry and Environmental Quality*, Vol 40 (2011). She has been the Editor and Chair of the SWSD Newsletter, published every semester since Fall 2000. For additional information about Nair's research and teaching program contact her at: <u>vdn@ufl.edu</u>

The Congressional Visits Day (CVD) is organized annually by the Science Policy Office of the American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America. It is coordinated by coalitions of professional societies and educational institutions to bring scientists and educators to the Hill to raise visibility and support for science, engineering, and technology. Recently, one of our PhD students, Rupesh Bhomia, participated in CVD-2012 event during March 27-28, in Washington, D.C. Rupesh was a part of 25 member team that met the congressman serving on various committees pertaining to science, technology and agriculture to both educate about and advocate for research, education, extension, and conservation as the annual budgets for U.S. agencies was convened. For congress, this activity puts a constituent face on agronomic, crop, and soil science as well as the issues that science addresses. For more information visit: <u>https://www.agronomy.org/science-policy/activities/</u> congressional-visits-days



From left to right: Dr. Karl Glasener, Rupesh Bhomia, Senator John Boozman (ARK), Prof. David Radcliffe (in front), Dr. Mary Savin, and Chris Oliver.

# Faculty, Staff, and Students

### Congratulations to our Faculty and Students ....

**Max Teplitski** received a \$100,000 Smithsonian G.A. Burch Fellowship in Theoretical Medicine. The goal of the research supported by the Fellowship is to discover novel approaches for controlling human pathogens through a better understanding of the responses of corals and their associated microbiota to pathogens. Only one such fellowship is awarded per year by the Smithsonian Institution in a world-wide competition.

**Lena Ma** was elected as a Fellow of the American Association for the Advancement of Science (AAAS). AAAS is one of the nation's leading scientific associations, spanning all scientific disciplines and publishing the journal Science. Election as a fellow reflects national recognition of international impacts and excellence in scientific accomplishments.

James H. Graham (Citrus Research and Education Center) and Lena Ma, SWSD professors recently were named as University of Florida Research Foundation (UFRF) Professors for 2012 - 2015. The recognition goes to faculty members who have a distinguished current record of research and a strong research agenda that is likely to lead to continuing distinction in their fields.

Benjamin Hogue was the recipient of the 2011 SWSD Excellence for Research (MS - Thesis) Award

Julie Padowski was the recipient of the 2011 SWSD Excellence for Research (PhD - Dissertation) Award

Manmeet Waria was selected as a 2011 Journal of Environmental Quality (JEQ) Outstanding Reviewer for her excellent service as a reviewer.

Cory Krediet received the 2012 UF-HHMI Science for Life Graduate Student Award.

Rupesh Bhomia and Ignacio Rodriguez received a Best Student Poster award at the 2012 Water Institute Symposium.

Anna Normand was selected to receive a 2012 National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP) Fellowship. Her selection was based on her outstanding abilities and accomplishments, as well as her potential to contribute to strengthening the vitality of the US science and engineering enterprise.

Anna Normand was elected as the 2012-2013 President of the UF Wetlands Club.

Listed below are students who received Dean's List recognition for their academic performance in Fall 2011. To earn a spot on the Dean's List, students must achieve a 3.70 GPA or higher for a minimum of 12 graded credits. An asterisk denotes students on the President's Honor Roll for Fall 2011. This recognition requires a 4.0 GPA with a minimum of 15 semester hours of graded credits.

Jason Bloom(SLS); Daniel Pleasant (SLS); Ellen Cochrane (IS-EMANR); Brooke Giuliano (IS-EMANR); Robert Laur (IS-EMANR); Dustin Pillow\*(IS- EMANR); Timothy Sink (IS-EMANR); Kayla Thomason (IS-EMANR); Kendra Thomason (IS-EMANR).

The University of Florida (UF) Wetlands Club was recognized by the UF



office of sustainability for Sustainable Solutions award-2012 for water category. This was the second consecutive year when UF wetlands club was commended for its efforts towards enhancing public understanding of wetland values and for the service provided by its members towards maintenance of local creeks and wetlands. Club activities are aimed at engaging wider public across the UF campus and local Gainesville community. More

information about Club can be found at <a href="http://ufwetlandsclub.blogspot.com/">http://ufwetlandsclub.blogspot.com/</a>



Sustainable Solutions Award ceremony: L to R: Dr. Bernie Machen, Rupesh Bhomia, Anna Prizzia, Ashley Philips, Chris Machen and Mark Clark.

# Family news

Twin girls Willow and Simone weighing 6 lbs and 5 lb 4 oz were born to Casey Schmidt and his wife Jennifer on February 6th, 2012. Casey Schmidt (PhD SWSD 2011, Advisor: Mark Clark) is currently a post-doctoral associate.