

A Newsletter for IRREC Advisory Committee Members, Faculty, Staff and Students

From the Director



Photo by
Velma Spencer

This December we celebrate the accomplishments of 19 students who have earned degrees. We also recognize scholarship awards granted to nine promising students who will continue their studies at IRREC.

The graduates have earned three Doctor of Philosophy awards, ten Master of Science degrees, and six Bachelor of Science degrees. The graduates completed degrees in topics such as Soil and Water Science, Environmental Management, Environmental Sciences, Environmental Horticulture, and Entomology and Nematology.

This month we honor international students who are natives of Ghana, Africa; India, Colombia, and the United Kingdom. One graduate works for the City of Miami; another, for Florida Power and Light, locally.

Angie Niño Beltran is IRREC's first Fulbright Scholarship recipient. She is earning a Master of Science degree in Entomology and Nematology. She has also started work on a doctorate degree, under the supervision of Dr. Ron Cave.

Two graduates are members of the charter students who enrolled in the Microbiology and Cell Science Bachelor of Science degree program.



Five IRREC graduates performed research or were employed at the U.S. Department of Agriculture U.S. Horticultural Research Laboratory adjacent to IRREC.

Because IRREC degrees fit the needs of busy students, coursework is completed online, and accompanying laboratory study plans are held here in IRREC. Volunteer and internship opportunities are exemplary. A current Microbiology and Cell Science student has shadowed three doctors this semester. Five graduates either performed research or were employed at the U.S. Department of Agriculture U.S. Horticultural Research Laboratory adjacent to IRREC. Many of our graduates will pursue more education.

Please read about our graduates. Their work will affect change for organizations, and for the environment. And, on behalf of the university, our faculty members and staff, we are very proud of each student, all who achieved high quality educational accomplishments at IRREC.

Pete Stoffella

Inside this issue

From the Director.....page 1
 Doctoral Graduates.....pages 2-3
 Master of Science Degree Recipients.....pages 3-8
 Bachelor of Science Degree Recipients.....pages 8-12

Doctorate Graduates



Dr. Chris Wilson, Dr. Santanu Bakshi and Dr. Zhenli He

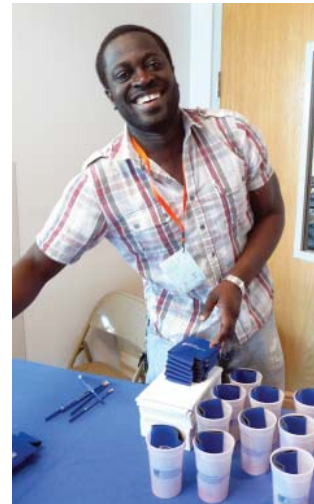
Santanu Bakshi is a native of Calcutta, India. He has earned a Doctor of Philosophy in Soil and Water Science, with an emphasis in Soil Chemistry.

Santanu is employed with UF in Gainesville, working as a research associate. His doctoral research was supervised by Professor Dr. Zhenli He, and involved soils and their chemistry, particularly with the fate of copper in contaminated sandy soils, efficacy of lime and biochar amendments in reducing copper transport from land to water and a protocol development for separation for nanoparticles from soils. The research is beneficial to the citrus industry.

His favorite course was Soil and Water Chemistry and his career goal is to be a good and productive scientist. His primary interest is with research of soils and their interface with water.

Santanu is a recipient of multiple academic awards, including two Grinter Fellowship Awards, an Outstanding International Student Award, five travel grants, and an Outstanding Seminar Talks Award from the University of Calcutta.

Santanu earned both bachelor's and master's degrees at the University of Calcutta in India.



Dr. Sulley Ben-Mahmoud

Sulley Ben-Mahmoud, a West African, Ghana national, has completed a Doctor of Philosophy in Entomology and Nematology. Sully came to Florida in 2009 to study entomology at the Florida Medical Entomology Laboratory in Vero Beach.

Sulley's doctoral research was supervised by IRREC Associate Director Dr. Charles Powell, Professor Dr. Ron Cave, and Dr. Bob Shatters, a research scientist at the USDA. Their work involved the study of citrus pest *Diaprepes*, with a goal to produce transgenic citrus that will resist the pest.

Sulley first realized an interest in microbiology while working on his first degree, under the leadership of an insect biochemist. He said biochemistry is a beautiful world because it offers opportunities to work with a myriad of plants and animals.

His goal is to return to his native country and assist the nation's agricultural interests with new pest control and pest management strategies.

Sulley earned both a bachelor's in biochemistry, and a master's in entomology at the University of Ghana, in West Africa.

GRADUATES



Dr. Evelien Van Ekert



Angie Niño Beltran, M.S.

Dr. Evelien Van Ekert, a native of Belgium, has earned a Doctor of Philosophy degree in Entomology and Nematology.

Evelien's doctorate research was directed by UF-IRREC professor Ron Cave and by Dr. Robert Shatters, who is a research scientist at the U.S. Department of Agricultural Horticultural Research Laboratory, adjacent to IRREC.

Her research involved finding mechanisms to biorationally control the Asian citrus psyllid, which is the insect that transfers the pathogen that causes citrus greening disease in citrus crops. Evelien resides in Port St Lucie with her husband and 2 year old daughter, and is expecting a little boy in March. In 2012, she was a laboratory instructor for IRREC's Microbiology and Cell Science bachelor's degree program. Evelien earned a Master of Science degree in Biotechnology at the University of Gent, Belgium in 2005.

She then worked for one year as a visiting scientist in the laboratory of Dr. Dov Professor Dov Borovsky at the Florida Medical Entomology Lab in Vero Beach, Florida, where she pursued a second Master of Science degree in Entomology and Nematology and graduated in 2010.

Evelien's list of impressive awards and scholarships include: The John A. Mulrennan, Sr. "Outstanding M.S. Student" Award for Fall 2010, from the department of Entomology

Angie Niño Beltran, our first Fulbright Scholarship recipient, graduated this summer with a Master of Science degree in Entomology and Nematology. A native of Bogota, Colombia, Angie is at this time pursuing a PhD in Entomology. Both her master's degree research, and her doctoral research, were and are being supervised by Professor Dr. Ron Cave.

Under his supervision, Angie is researching methods to thwart damage made by an invasive pest, the yellowmargined leaf beetle, to Florida's organic vegetable crops. The biological control research is to sustain agriculture because organic farmers in both countries struggle to protect crucifer vegetables such as broccoli, cauliflower, bok choy, cabbage, collards, mustard, radish, turnip, and watercress.

Angie's career goal is to complete her studies and return to her country where she will assist the agricultural industry there with its fight against insect pests. She believes growers will continue to seek organic production methods.

Angie earned a Bachelor of Science degree in Biology at the Universidad Militar Nueva Granada, in Colombia. There, she was employed as a research assistant at the Universidad Militar Nueva Granada, in Bogotá, Colombia, working with mites and bees in a biological control laboratory.

Master of Science Degree Award Recipients



Cerezo Family

Rene Cerezo has earned a Master of Science degree in Entomology and Nematology. A native of Cuba and longtime Miami resident, Rene is employed full-time as a Pollution Control Inspector II with the Miami-Dade Department of Regulatory and Economic Resources Division of Environmental Resources Management.

He has held the position for 11 years; his primary responsibilities are to conduct environmental evaluations and compliance inspections of industrial facilities. The subject facilities are categorized as high risk because of their operation within well field protection areas in which contaminants are produced.

Though Rene's degree was non-thesis, he did perform a special project survey of the aquatic fly larvae inhabiting the phytotelmata of two threatened bromeliads in a fragmented bromeliads in a fragmented land of Miami-Dade County, Florida. Rene's interest in insects is with insect conservation within an urban habitat.

Rene completed a bachelor's degree in Biological Sciences at Florida International University with emphasis in Medical Microbiology.



Ellen Michelle Bourne

Ellen Michelle Bourne has earned a Master's of Science degree in Soil and Water Science.

Michelle has for six years been employed with the US Army Corps of Engineers at its Engineer Research and Development Center Environmental Laboratory in Vicksburg, Mississippi. Her current position is a Research Biologist.

She pursued the master's degree for advancement within her current employment. Michelle's current research projects involve Environmental Risk Assessments, Beneficial Use of Dredged Material and Fate and Transport of Contaminants, which are primarily explosives.

Her career goals are for advancement to a position as Principle Investigator and Team Leader, continuing with her employment in her dream job with the Army Corps of Engineers.

Her favorite course with UF was a summer course called South Florida Ecosystems, as she said it was a great opportunity to get out of her office, get her hands dirty and see all of South Florida's water systems. Michelle is a lifelong resident of Vicksburg, Mississippi.

Master Degree Award Recipients



Chloë Hawkings

Chloë Hawkings, a native of Wales, in the United Kingdom, has earned a Master of Science degree in Entomology and Nematology. She works at the USDA, as a research assistant, here in the Treasure Coast Research Park.

Her graduate research was supervised by Professor Dr. Ron Cave, and involved using RNA interference as a strategy to control Asian citrus psyllid: a method to reduce citrus greening disease.

A talented photographer, Chloë recently won second prize out of hundreds of entries for a photograph she submitted to UF Gainesville's Global Culture Photo contest for UF staff, alumni and international students. The photo captured the magnificence of New York City's Grand Central Station and is currently on exhibit at UF's Grinter Gallery.

Chloë's career goal is to pursue research and a PhD program. During her academic tenure she won First Place for the President's Prize for an oral research presentation before the Entomological Society of America at the organization's annual meeting held in Knoxville, Tennessee.



Kristen Wald and her family

Kristen Wald has earned a Master of Science degree in Environmental Horticulture.

Kristen is a member of the Helseth family, local pioneers of the region's legendary citrus industry. In the 1970s, her own grandfather's namesake was given to the Helseth Lemon.

Kristen's graduate advisor was Professor Dr. Sandra Wilson. Her research was supervised by Dr. Joe Albano at the USDA, next to IRREC and involved greenhouse marigolds and the effects of silicon upon the classic flowers. She was also employed at the USDA, under David Hall, working as a laboratory technician doing DNA extractions.

Kristen's career goal is to work as an extension agent working directly with growers, or work for a large chemical company as a field technician. She previously was employed with Helena Chemical Company.

During her academic tenure at IRREC, Kristen was recognized with the St. Lucie County Master Gardeners Scholarship Award; and the Bud Adams Family Scholarship Award.

Kristen earned a bachelor's degree in horticulture at Florida Southern College where she graduated Summa Cum Laude. There she was recognized as Horticulture Student of the Year, and received a Farm Bureau Scholarship Award. Kristen was also a member of Phi Kappa Phi and was both President and Charter member of Sigma Alpha at Florida Southern.

Master Degree Award Recipients



Kassidy Klink

Kassidy Klink has earned a Master of Science degree in Soil and Water Science with the Environmental Sciences track. A career Environmental Geologist,

Kassidy's work involves reclamation of industrial sites. Now employed with a company called Peak Environmental in Woodbridge, New Jersey, Kassidy said he was hired for his new position near completion of the master's degree this May.

He has worked in the environmental geology field for eight years. His work projects typically take place at sites that have been contaminated by industry at commercial locations such as factories, commercial sites and on military bases. Kassidy said the UF program was rigorous, provided challenging work and gave him skills he uses today in his employment.

Courses instructed by Dr. Lena Ma were especially applicable to his daily work. Dr. Ma researches phytoremediation and is involved with decontamination on Florida's firearms ranges. IRREC Professor Dr. Zhenli He served as Kassidy's advisor. Kassidy said he wanted a master's degree from a reputable university that would command respect in his field and UF was the right choice for his academics. Kassidy earned a Bachelor's degree from Kean University in Union, New Jersey.



Kara Krueger

Kara Krueger has earned a Master of Science degree in Environmental Horticulture.

Kara's primary interest is in urban gardening; her career goal is to work in a large metropolitan area to plan and implement sustainable 'greenway,' or sustainable landscaping spaces.

As part of her graduate degree, Kara conducted a research project under the supervision of Dr. Sandra Wilson, IRREC's expert in environmental horticulture. The research project involved native switchgrass and little bluestem grasses, or low maintenance, attractive ornamental grasses. The research project is one of 15 being conducted throughout the US for evaluation of grasses to be used for erosion control and in high population areas.

A native of Palm City, Kara was recognized with a Martin County Master Gardeners Scholarship Award.

Kara earned a bachelor's degree in Political Science with minors in both Math and Spanish, from Gardner-Webb University in Boiling Springs, North Carolina. She attended Gardner-Webb on a sports and academic scholarship and participated on the university's division 1 soccer team.



David Niebch

David Niebch has earned a Master of Science degree in Environmental Management.

He has for more than a decade served as an Environmental Analyst for Florida Power and Light's St. Lucie Power Plant, in the Nuclear Division, in increasing roles of responsibility.

Dave's graduate research program was supervised by Professor Dr. Chris Wilson. He researched the feasibility of a candidate biofuel crop, sorghum, as an alternative or rotation crop for citrus producers.

Dave says his dream job is the job he holds right now. According to his supervisor, and an IRREC alumni member Vince Munne, Dave is an exceedingly valuable employee.

Dave earned a Bachelor of Science degree in Biology from the University of Central Florida in Orlando. He is a native of Palm Beach Gardens.



Michelle Oullette

Michelle Oullette has earned a Master of Science degree in Environmental Management, with a minor in Environmental Engineering Sciences.

She is employed with Lockheed Martin Space Systems Co. in Denver, Colorado, where she works as an Environment, Safety and Health Engineer. Her work there focuses upon industrial hygiene, chemical safety and personnel safety in regards to OSHA. Prior to her recent appointment with Lockheed, she worked at the Kennedy Space Center with the space shuttle program with health services.

Dr. Chris Wilson supervised Michelle's graduate research. Her research involved toxicity and agricultural run-off studies to find lethal doses to duckweed using pesticides and herbicides.

Michelle earned a Bachelor of Science degree in Environmental Science and Chemistry at Florida International University. Throughout her studies at FIU, she was a Bright Futures Scholarship recipient. Her career goal is to gain employment with the federal Environmental Protection Agency and to conduct work with water quality and environmental remediation.

IRREC NEWS

Master Degree Award Recipient

IRREC News

8

Winter 2013



Lindsay Shaffer

Lindsay Shaffer has earned a Master of Science degree in Entomology and Nematology.

She is now employed with the St. Lucie County School District.

Lindsay was previously employed at the USDA as a graduate research assistant, participating in research under the supervision of Drs. Bob Shatters and our Associate Center Director and Professor Dr. Charles Powell. Along with the scientists she conducted research to investigate RNA interference of Asian citrus psyllid, the region's legendary citrus industry's greatest threat. RNA interference is part of an integrated pest management program to protect citrus crops.

Lindsay enjoys molecular biology and its abilities to understand the different elements of its structures.

Lindsay earned a bachelor's degree at the University of Central Florida where she graduated Cum Laude.

She also attended Lincoln Park Academy here in Fort Pierce, where she participated in the prestigious International Baccalaureate program.

Bachelor Degree Award Recipient



Kimberly "Kimmy" Jones

Kimberly "Kimmy" Jones has earned a Bachelor of Science degree in Environmental Management.

She was this year named a Bob Graham Center for Public Service Civic Scholar, and she was recognized with the Garden Club of Indian River County Scholarship Award. She was this the fall, a media sensation during local lagoon rallies, where she served as an expert spokesperson about local water conservation issues.

Having completed the bachelor's degree, Kim has started courses towards work in a Master of Science degree in Ecological Restoration.

During her undergraduate studies, she has been recognized with a number of scholarships and is a member of Delta Epsilon Iota National Honor Society. She has held a place on the UF's Dean's List for three consecutive semesters.

While a resident of California, Kimmy earned a bachelor's degree in geology. She was employed with the City of South Lake Tahoe Parks and Recreation Department and the United States Forest Services.

It was during her work in this position that she realized her passion for environmental education programs and the protection of natural resources. This passion brought her back home to Vero Beach to continue her education, with a goal to "protect the fragile lagoon habitat I grew up with."

Bachelor Degree Award Recipients



Shawn Christopherson

Shawn Christopherson has earned a Bachelor of Science degree in Environmental Management with a minor in Sustainability.

Once a career network administrator based in New York, Shawn moved to Port St. Lucie a decade ago and decided to pursue a new career in environmental protection.

He now holds a full-time position as a project planning wildlife biologist with the US Fish and Wildlife Service in Vero Beach. Shawn was introduced to the federal service through its STEP program for students who wished to pursue a career in the field.

As a project planning wildlife biologist, Shawn works directly with Federal agencies on development projects to ensure that the environment and our natural resources are protected. His responsibilities includes reviewing and providing recommendations on plans and development designs, crafting mitigation plans, providing expertise in wildlife and habitat science, and serving as members on planning teams.

Shawn's career goal is to seek advancement with the wildlife service. He has a keen interest in renewable energies.



Shawn DeSantis

Shawn DeSantis has earned a Bachelor of Science degree in Environmental Management.

A native of Fort Pierce, and a former IRREC employee, Shawn has been employed full-time with the South Florida Water Management District since 2011.

In his current position as a Science Technician 3, he works with the state's fragile and vast water resources. He continues with his work part-time at IRREC with statistical data analysis, under the direction of Dr. Cortney Ohs, who leads our aquaculture and fisheries program.

Shawn intends to pursue advancement with his work to protect Florida's water resources and wildlife management.

During his undergraduate work, Sean was recognized with A St. Lucie County Master Gardeners Scholarship Award.

Bachelor Degree Award Recipients



Emily Westermeier

Emily Westermeier is our third charter student who enrolled in the Bachelor of Science Microbiology and Cell Science degree program.

She graduated last spring.

A performing and talented musician, Emily co-wrote and performed a rousing song about MERSA during the Land Grant Celebration at IRREC.

Her career goal is to pursue a career in physical therapy.

A native of Tennessee, she is fluent in French, Spanish and Swedish languages and lived abroad for five years in Europe.

Emily earned an Associate in Arts degree from Indian River State College, where she was on the Dean's List all semesters, with the exception of her final semester, on the President's List.



Andrew Stygar

Andrew Stygar was the second student who enrolled in the charter group of those who sought the Bachelor of Science Microbiology and Cell Science degree. He completed the degree this year.

He graduated Cum Laude and was one of our highest academic achievers. During his tenure at IRREC he was named to the UF upper division honors program through CALS.

He served a 2-year internship at the Florida Medical Entomology Lab in Vero Beach, under Dr. Smartt, whose expertise is with molecular arbovirology. Andrew intends to seek a career in the medical field.

A native of New York, Vero Beach resident, and avid community volunteer, Andrew devoted his time to the Sebastian River Medical Center Emergency Room and to the Indian River County Homeless Shelter. Andrew's exemplary academic performance while a student at UF was recognized with a Garden Club of Indian River County Scholarship Award, two Treasure Coast Gator Club Scholarship Awards, and a Florida Rural Rehabilitation Corporation Off-Campus Scholarship. Andrew graduated Summa Cum Laude from Indian River State College with an Associate in Arts degree in General Studies. While a student at IRSC he was recipient of the Bright Futures Medallion Scholarship, and the Daryl C. Jacobs Memorial Scholarship Fund. He was also recipient of five student scholarships presented to him by his employer, Indian River Estates in Vero Beach.

IRREC NEWS

IRREC Graduation Celebration, December 6

IRREC News

11

Winter 2013



Angie Niño Beltran, M.S.,
Graduate Student Speaker



Dr. Sandra Wilson, Mistress of Ceremonies



Kimberly "Kimmy" Jones,
Undergraduate Student Speaker



Associate Dean Dr. Al Wysoki,
Graduate Evelein Van Ekert,
and IRREC Center Director Dr.
Peter J. Stoffella



Graduate Rene Cerezo, M.S.,
and family



Associate Dean Dr. Al Wysoki,
Graduate Rene Cerezo, M.S., and
IRREC Center Director Dr. Peter J.
Stoffella



Associate Dean Dr. Al Wysoki,
Graduate Dr. Sulley Ben-Mahmoud,
and IRREC Center Director Dr. Peter
J. Stoffella



Lovely fresh flower arrangements were
designed and assembled by members
of IRREC's environmental horticulture
department



Associate Dean Dr. Al Wysoki,
Graduate Shawn DeSantis, B.S.,
and IRREC Center Director
Dr. Peter J. Stoffella



Graduate David Niebch, M.S.,
and his "Gator" family



Dr. Zhenli He and Graduate
Dr. Santanu Bakshi



Graduate
Chloë Hawkings, M.S.

IRREC NEWS

IRREC News

12

Winter 2013



Earn Your University of Florida Degree Local, at the UF Indian River Research and Education Center at Fort Pierce

BACHELOR'S DEGREES:

Environmental Management, M.S.
Microbiology and Cell Science, B.S.
Plant Science, M.S.

MASTER'S DEGREES:

Agricultural Education and Communications, M.S.
Agroecology, M.S.
Ecological Restoration, M.S.
Entomology, M.S.
Environmental Horticulture, M.S.
Family, Youth and Community Sciences, M.S.
Fisheries and Aquatic Sciences, M.S.
Geomatics, M.S.
Natural Resources and Policy Administration, M.S.
Soil and Water Science Environmental Science, M.S.

CERTIFICATE PROGRAMS:

Agricultural and Fish Health (Graduate)
Entomology - Pest Management (3 options) (Undergraduate)
Natural Resource Policy and Administration (Graduate)
Quantitative Fisheries Science (Graduate)
Soil and Water Science (4 options) (Graduate)
Sustainable Horticulture Management (Undergraduate)

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IRREC NEWS

IRREC News

13

Winter 2013

IRREC NEWS

IRREC News

14

Winter 2013