

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 15 students who have earned degrees and certificates. We also recognize scholarship awards granted to eight promising students who will continue their studies at IRREC.

The graduates have earned two Ph.D.'s, four Master of Science degrees, eight Bachelor of Science degrees, and two certificates. They earned degrees in topics such as Fisheries and Aquatic Sciences, Environmental Management, Environmental Sciences, Environmental Horticulture, Entomology and Nematology and Pest Management.

This month IRREC officials are recognizing two students who earned the center's first Bachelor of Science in Microbiology and Cell Science degrees. The students are charter members of the new Microbiology and Cell Science Bachelor of Science degree program. Because IRREC degrees are innovative, coursework is completed online, and accompanying laboratory study plans are flexible. Volunteer and internship opportunities are exemplary. One IRREC graduate earned a Master's degree while serving as a full-time employee for one of



IRREC Graduate James Lindsay III, completed a Master's degree while employed full-time with the US Army Corps of Engineers in Vicksburg, Mississippi

the nation's most prominent environmental preservation organizations. He works in Mississippi. Two graduates work full-time at the U.S. Department of Agriculture U.S. Horticultural Research Laboratory adjacent to IRREC. Another graduate, who holds a prominent position with a state regulatory agency, was promoted upon completion of a certificate. Many of our graduates will pursue more education. One graduate intends to seek a career in dentistry; another, a laboratory research career.

Please read about our graduates, their accomplishments and their career aspirations inside this issue. 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

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Matthew DiMaggio, Ph.D., Fisheries and Aquatic Sciences



Matthew A. DiMaggio earned a Doctor of Philosophy in Fisheries and Aquatic Sciences. He is now a Post-Doctoral Research Scientist at the University of New Hampshire, Department of Biological Sciences.

Matt's doctoral research was conducted under the direction of Dr. Cortney Ohs, Associate Professor of Fisheries and Aquatic Sciences at IRREC. His research involved the development of a new industry for baitfish aquaculture production to provide bait to recreational and commercial fisherman.

Matt joined IRREC in 2006 as a graduate research assistant. He completed a M.S. degree in Fisheries and Aquatic Sciences in August, 2008. His academic career was focused on all aspects of marine bait fish biology and the development of an aquaculture production industry.

During his work at IRREC, he was honored with a Simpson Foundation Scholarship Award, an Aylesworth Scholarship Graduate Fellowship; the UF Alumni Graduate Fellowship in 2008; membership in the Tri-Beta National Biological and the Gamma Sigma Delta Agricultural Honor Societies; a World Aquaculture Society Best Oral Presentation, 2nd Place, a Sea Grant Association Award from the U.S. Aquaculture Society—Best Student Paper, during Aquaculture America 2009 meeting; three years UF/IFAS Travel Grants in 2008, 2009 and 2010; The UF James Davidson International Travel Grant in 2009; and, the UF Fisheries and Aquatic Sciences SURF Travel Grant in 2008.

Ramona Smith-Burrell, Ph.D., Soil and Water Science



Dr. Ramona Smith-Burrell has earned a PhD. in Soil and Water Science. She is an Associate Professor of Biology at Brevard Community College Palm Bay campus and a resident of Malabar.

Ramona completed her doctoral research here at IRREC, in Professor Dr. Chris Wilson's Environmental Toxicology laboratory. Dr. Chris Wilson and Dr. Samira Daroub served as chair and co-chair on her doctoral committee. Additional committee members were Dr. Zhenli He, Dr. Steve Roberts, a UF professor, and Dr. Cathleen Hapeman, a USDA research scientist.

Dr. Smith-Burrell previously worked with the U.S. Department of Agriculture in Beltsville, Maryland, in the Environmental Quality Laboratory as a support scientist. Her research there focused on air and water quality examining the effects of ozone on various crops, and pesticides in surface water and air samples. That position was then relocated to the U.S.D.A. facility in Fort Pierce, adjacent to IRREC at the U.S. Horticultural Research Service Laboratory. Her work there took place in Dr. Joe Albino and Dr. T.J. Evan's laboratories through the support of Dr. Cathleen Hapeman lab in Beltsville and involved research on water quality in the Homestead Agricultural area and the Caloosahatchee River. Her PhD study was two-fold, including a field component characterizing the pesticides and pesticide degradation products present in the Caloosahatchee River and a laboratory component determining the effects of contaminant mixtures on the aquatic macrophyte, *Lemna minor*.

Ramona earned three degrees at Florida Institute of Technology in Melbourne: A Master of Science in Ecology and Conservation Biology and two Bachelor of Science degrees: one in Ecology; a second, in Marine Biology.

Cheryl Dunne, M.S., Environmental Sciences



Syngenta Crop Protection Scientist Cheryl Dunne has completed a Master of Science degree in Environmental Science. A longtime employee at Syngenta's Vero Beach location, Dunne has held positions with increasing roles of responsibility with one of the nation's most prominent agricultural suppliers for more than two decades.

Her current position is Research and Development Scientist II. In this capacity she carries out biological testing of experimental herbicides, environmental fate and herbicide residues in soil, weed resistance monitoring, crop safety and herbicide formulation development. The herbicides she works with mainly are those used to protect corn and soy beans, wheat and cotton crops. Her work is primarily greenhouse based; she also does research field work with soils and herbicide behavior. Some of the soils she works with are shipped from other places in the country to represent soil conditions for crops grown in the Midwest or Deep South.

Cheryl's graduate research was supervised by Dr. Zhenli He and involved herbicide experiments to determine causes of soil degradation. Cheryl said she her master's degree work widened her knowledge about soils, remediation, and chemistry. She also built a network of professionals and professors to widen her range of resources in regards to environmental sciences and in academia.

Cheryl earned a Bachelor of Science degree in Environmental Management at IRREC in 2008.

IRREC GRADUATES

Wen Gu, M.S., Environmental Sciences



Wen Gu earned a Master of Science degree in Environmental Sciences. A native of Jinan, Shandong Province in China, Jinan's home is renowned for its natural springs and the city's downtown historic district.

At this time, Wen is pursuing a Ph.D. at the University of Georgia. Her doctorate research involves environmental engineering with a focus on hydrology modeling. For her studies, she was awarded an assistantship from the University of Georgia.

Wen joined IRREC in 2010 as a graduate student. Her graduate research work was performed under the direction of Dr. Zhenli He, for the study of nitrogen management in sandy soils, characteristic in Florida.

Upon earning her doctorate, Wen intends to pursue employment with a firm that needs an environmental scientist. She said she wants an opportunity to apply what she has learned to solve real problems in science and in agriculture.

Wen said her studies at IRREC provided an excellent opportunity to conduct research with experienced research professors. Her experiences with faculty and staff at IRREC, and with scientists at the adjacent U.S. Department of Agriculture, were pleasant she said, because the people are welcoming to international students.

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James Lindsay, M.S., Environmental Sciences

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James Lindsay III, earned a Master of Science degree online while working full-time for the Army Corps of Engineers in Vicksburg, Mississippi. An Eco toxicologist, James has worked for the Army Corp for five years. The Army Corp Vicksburg District employs more than 1,500 and provides a full range of water resource products and services, covering more than 68,000 square miles in Arkansas, Louisiana and in Mississippi. He works in the district's environmental research and development center.

A native of Jacksonville, James graduated UF in Gainesville with a B.S. in Environmental Science in 2000. He worked for the Florida Department of Environmental Protection with air compliance at the agency's Jacksonville office. His work then took him to Lafayette, Louisiana, where he worked with wildlife fisheries and other wildlife, including an alligator conservation team.

His current research project involve dredge material evaluations on bioassays taken from as far north as the Great Lakes, and the nation's eastern and western seaboards. Dredge materials originate from navigable canals, including many located near New Orleans. A common element he works with is Tungsten, a contaminant.

James said what he most enjoyed about earning a UF degree online is the ability to work full-time while still being able to complete courses. All of his research was conducted in the laboratory facility where he works. James' career goal is to continue his education for further advancement.

Karen Stratman, M.S., Entomology and Nematology



Karen Stratman has earned a Master of Science degree in Entomology and Nematology. Her thesis involved an insect. Its title was: the *Cricotopus lebetis* (Diptera: Chironomidae), a fortuitous biological control agent of *Hydrilla verticillata* (Hydrocharitaceae). *Hydrilla* is a highly invasive plant that multiplies rapidly in Florida's waters and competes with wildlife and natural plants.

Her graduate research work was under the direction of IRREC's Dr. William Overholt, and Dr. P Chris Wilson. While she pursued the master's degree, Karen was recognized with a 2nd Place Award at the Florida Entomological Society during its Master's Student Paper Competition.

A native of Cincinnati, Ohio, Karen earned a B.S. degree in Environmental and Natural Resources at Clemson University. Karen now resides in North Carolina where she serves as a volunteer at a North Carolina Extension Service. Her career goal is to use her degree to make the world more environmentally friendly. An ideal job for her would be one in which she was involved with multiple projects to the benefit of many people and their environment. A job to manage invasive species would be ideal, she said.

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Ellen Cochrane, B.S. Environmental Management

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Ellen Cochrane completed a Bachelor of Science degree in Environmental Management, Summa Cum Laude, the university's highest honors. In addition, she completed a required honor's theses in a topic related to her degree.

Her honor's theses involved the study of two separate soils commonly found along the Treasure Coast and the ability of those soils to move nutrients rapidly, onto water sources. The research she conducted took place in soils situated on horse farms.

She is at this time employed full time at the US Department of Agriculture United States Horticultural Research Laboratory near Fort Pierce. There she serves as a biological science technician under the direction of Dr. Ed Stover, who heads a citrus scion breeding laboratory. Her work at the laboratory involves tissue culture analysis and biotechnology, and the propagation of citrus plants to mass produce many others. She has served there for two years.

Because she was able to earn an Associate in Arts degree in Biology at Indian River State College while serving as a laboratory technician in the science labs at that school, and is now employed at a federal laboratory while she pursues a master's degree, Ellen said she is amazed she was able to accomplish so much without having to move where a large university is located.

IRREC GRADUATES

Regina Conley, B.S., Environmental Management



Regina Conley has earned a Bachelor of Science degree in Environmental Management. A resident of Vero Beach, Regina is a recipient of a Garden Club of Indian River County Scholarship Award.

Throughout Regina's studies, she has served in two capacities at the U.S. Department of Agriculture U.S. Horticultural Research Laboratory.

Her research work is carried out under the direction of Dr. Ed Stover. Regina was at first a U.S.D.A. student research aid, and is now employed by UF as a research assistant working for Dr. Gloria Moore, in Gainesville.

At this time Regina's work is to support the development of a consistent and rapid method to screen citrus germplasm for resistance to the disease, huanglongbing, or citrus greening.

Regina earned an Associate in Arts degree in Environmental Sciences at Indian River State College.

Regina's intends to continue her research career she enjoys at the U.S. Department of Agriculture Horticultural Laboratory.

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Scott Elliott, B.S., Microbiology and Cell Science

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One of IRREC's charter Microbiology and Cell Science students, Scott Elliott is one of two students to earn the degree for the first time in the center's history.

During his tenure at IRREC, he was a recipient of the Bud Adams Family Scholarship Award. The new degree is the second bachelor's degree Scott has earned from UF. His first UF degree is a Bachelor of Science degree in Food Science and Human Nutrition, earned in 2009, while in residence at the Gainesville campus.

In addition to his academic pursuits, Scott serves full-time as Nutrition Care Coordinator at Indian River Estates Retirement in Vero Beach. His duties there are to write meal plans and special dietary requirements to meet the community's more than 6,000 residents.

Having achieved the B.S. degree at IRREC, Scott's new goal is to apply to dentistry school and pursue a career as a dental surgeon. While a student at UF in Gainesville, Scott was a member of the American Medical Student Association and the Food Science Human Nutrition Club. During his studies at the University of Florida, Scott was recognized with the prestigious Turner Land Grant Scholarship and was named to the Dean's List.

Christy Richardson, B.S., Microbiology and Cell Science



A member of IRREC's charter Microbiology and Cell Science students, Christy Richardson is one of two students to earn the degree for the first time in the center's history.

Christy said she saw the Microbiology and Cell Science program's curriculum when it was a new program and knew at once it would be her next step in her educational pursuits. Christy's lifelong career ambition remains the same: to conduct research. Because IRREC offers students opportunities to participate in research, Christy said she has reached that goal as an undergraduate student. She is at this time conducting science-based research as part of her Microbiology and Cell Science senior project, under the direction of Dr. Pasco Avery.

The research project involves the predator behavior of the spined soldier bug, attacking larvae of the yellow margined leaf beetle. For the experiment, the beetle is infected with an entomopathogenic fungus to determine if it can be used in combination with the soldier bug as an Integrative Pest Management practice. In addition, her research will find the predator's susceptibility to the fungal infection.

Christy's research is expected to contribute to methods of protecting turnips, an important cash crop. Because Christy's research is highly anticipated by growers, she has been invited to present her findings at the Florida Agricultural Sciences annual meeting, scheduled for March, 2013.

A graduate of Indian River State College, Christy earned an Associate in Arts degree in Chemistry. She is a Certified Nursing Assistant and has worked at Lawnwood Regional Medical Center, and at both Wal-Mart and CVS pharmacies.

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Jenny Hoover, B.S., Environmental Management



Seventh-generation Floridian Jenny Hoover has completed a Bachelor of Science degree in Environmental Management, with a Food and Resource Economics minor. Her ambition is to protect the land and way of life in her native Okeechobee, one of the state's most important agricultural regions. Her plans are to begin a Master of Science degree in Environmental Sciences at IRREC and a management position with a local agricultural firm or operate an agroecology consultant business.

Jenny earned an Associate in Arts degree in general studies at Indian River State College and then attended UF in Gainesville prior to her return to Okeechobee. At this time Jenny is a substitute teacher for the Okeechobee County School District.

Jenny said she believes firmly in online education as she was able to plan her studies on her own schedule. The format also provided her with an opportunity to be with family rather than driving to classroom locations. Jenny said interactive chat sessions provided ample opportunities to communicate with her professors and fellow students.

She also notes the flexibility and range of opportunities at IRREC. Academic Coordinator Jackie White assisted Jenny with gaining approval for the Food and Resource Economics minor. Jenny said opportunities for students to volunteer or find part-time paid work are an important part of earning a degree, as are research projects as part of a curriculum plan.

Kayla Thomason, B.S., Environmental Management



Kayla Thomason graduated UF in Gainesville with a Bachelor of Science degree in Environmental Management.

During her UF academic tenure, she earned a Bright Futures Scholarship, and the Agrochemical Association Scholarship Award. She worked for a semester in a UF soils laboratory. Kayla also served three internships with Syngenta Crop Protection in Vero Beach and was active with student agricultural clubs. She is a board member serving as Treasurer for the Block and Bridle Club at UF, a student organization that serves animal science. And, she is a member of the Gator Collegiate Cattlewoman's Club.

What Kayla liked most about studying at UF in Gainesville, was the availability of her professors to assist student.

Kayla's career goal is to seek a position working for an agricultural chemical producer or distributor, assisting growers with resources and in production best management practices.

Kayla earned an Associate in Science degree at Indian River State College in Environmental Sciences, while dually enrolled as a high school student.

Kayla and her sister, IRREC graduate Kendra Thomason, are Fort Pierce natives. While attending Westwood High School, Kayla was a member of Future Farmers of America Club. She also participated in 4-H, and showed pigs at the local St. Lucie County Fair.

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Debra Flinn, B.S., Environmental Management



Debra Flinn earned a Bachelor of Science degree in Environmental Management. During her IRREC studies she was recipient of two scholarships, the Lowe Scholarship, and the Florida Rural Rehabilitation Corporation Off-Campus Scholarship.

She is at this time working as a Quality Assurance Specialist for Topps Candy Co., located in Scranton, Pennsylvania.

While attending courses at IRREC, Debra was employed at the U.S. Department of Agricultural U.S. Horticultural Research Laboratory. She served as a biological science technician, in Dr. Tim Gottwald's laboratory, researching two of the citrus industry's formidable threats, greening and canker.

Her goal is to seek a Florida-based position in which she will be in a position to protect the natural environment and utilize fully her new degree.

Kendra Thomason, B.S., Environmental Management



Kendra Thomason earned a Bachelor of Science degree in Environmental Management.

Soon following completion of her degree, she was hired full-time with Syngenta Crop Protection in Vero Beach. Her title is Research Specialist and her duties are to conduct laboratory, field and greenhouse research to support and create Syngenta's crop protection products. Her work includes tasks such as planting, spraying, rating, harvesting and data collection and reporting.

While an IRREC student, Kendra was employed full-time in Dr. Mark Ritenour's Post-harvest technology laboratory. Her work in the lab as a research technician involved many research tasks, including layout and flag field plots, administration of treatments and conducting internal fruit quality analyses. Dr. Ritenour said she managed most of the lab's inspections of fruit in storage, evaluation and identification of diseases and disorders that developed in fruit.

Kendra's career goal is to pursue more education for advancement opportunities. She intends to apply to graduate school and earn a Master of Science degree in Agronomy.

Jodi Velde, Certificate in Pest Control Technology



Jodi Velde has earned a Certificate in Pest Management Control Technology. Co-owner of Tropical Lawn and Pest Management in Vero Beach, Jodi strives to provide the company's clients with the best services available. The company's stated goal is to bring to clientele a landscape services company, which is unsurpassed in work ethics and the products produced.

The certificate Jodi earned will further support the company's goal. Jodi's career goal is to continue to enhance her company's services with cutting-edge expertise and resources.

A native of Vero Beach, Jodi hold a Bachelor of Arts degree in Accounting from the University of Miami.

Cynthia Lott, Certificate in Sustainable Land Resource and Nutrient Management



Cynthia Lott, Environmental Specialist III for the Florida State Department of Environmental Protection, has earned a Certificate in Sustainable Land Resource and Nutrient Management. Cynthia was promoted upon completion of the certificate; she uses the new information to train co-workers and provide inter-agency wetlands delineation training workshops.

In addition to the new tasks, Cynthia conducts environmental resources permitting for sovereignty submerged lands, pursuant to Florida Statute. The near shore environmental assessments she completes in lagoons and wetlands allow applicants to utilize state lands for home sites, docks or restoration projects in St. Lucie, Martin and Okeechobee counties. Coral reef assessments are also part of her work as annual assessments occurring in Martin and Palm Beach counties.

Her employment with the state has been for a successful 16 years. She was named 2010 Employee of the Year at the FDEP South District in recognition of training she provides, and for her service as the Unit Drive Safety Officer. In this capacity she handles in-water activities such as divers' and snorkel inspection and survey activities.

In Cynthia's own words, she said, "If it's a wetland or submerged land, you can find me there." She moonlights as a mermaid at Weeki Wachee Springs State Park--just for fun.

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The Florida Rural Rehabilitation Corporation Off-Campus Scholarship Award



This Scholarship was established by the Florida Rural Rehabilitation Corporation to support students pursuing off-campus academic programs through the College of Agricultural and Life Sciences.

To assist those who work in the nation's rural areas, the organization originally established the scholarship awards with repaid loan funds from the Federal Emergency Relief Act, inspired by the vision of President Franklin D. Roosevelt, during the Great Depression in 1933.

The Florida Rural Rehabilitation Corporation Off-Campus Scholarship Award Recipients are:

Sarah Ford

Christy Richardson

Andrew Stygar

Simon Sokolof-Kemp

The St. Lucie County Master Gardeners Scholarship Award



The St. Lucie County Master Gardeners Scholarship Award is available to IRREC students seeking degrees in environmental horticulture and environmental sciences. The St. Lucie County Master Gardeners program has served St. Lucie County gardening enthusiasts since 1984. Master Gardeners individually complete a rigorous education program about local gardening and then provide educational leadership to the community in home gardening.

The St. Lucie County Master Gardeners Scholarship Award Recipient is:

Kristin Wald

The Treasure Coast Gator Club Scholarship Award

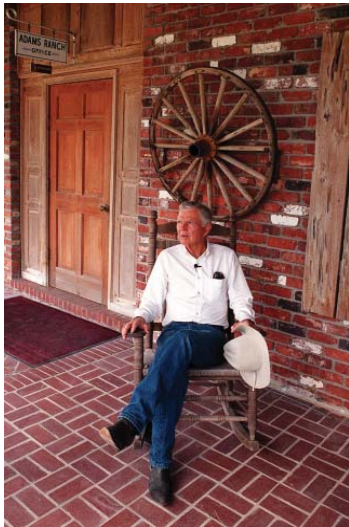


The Treasure Coast Gator Club is a supportive partner to IRREC students. The Gator Club has distributed over \$60,000 dollars in scholarship funding for Treasure Coast residents since 2001. The Treasure Coast Gator Club serves over 4,000 alumni and friends, and was founded in 1981.

The Treasure Coat Gator Club Scholarship Award Recipient is:

Andrew Stygar

The Bud Adams Family Scholarship Award



The Bud Adams Family Scholarship Award is provided to the University of Florida/IFAS Indian River Research and Education Center students who are pursuing higher education.

Since 2006, more than \$5,000 has been distributed to local students from the award. The Alto "Bud" Adams family is a prominent St. Lucie County agriculturalist family who has operated Adam's Ranch, a well-known cattle ranch since the 1930s. The ranch is known worldwide for its high quality cattle and distinguished agroecology practices.

The Bud Adams Family Scholarship Award Recipients are:

Hayley Alber

Xiaoqing Yu

IRREC SCHOLARSHIPS

The Garden Club of Indian River County Scholarship Award



To further their mission to serve the venerable art of gardening, to promote environmental horticulture, and to protect Indian River County's environment, the Garden Club of Indian River County offers a scholarship program.

Eight IRREC students have benefitted with \$8,000 in scholarship awards generously provided by the Garden Club of Indian River County.

The Garden Club of Indian River County Scholarship Award Recipients are:

Andrew Stygar

Jason Broach

The Simpson Family Foundation Graduate Scholarship Award



The Simpson Family Foundation Graduate Student Scholarship Award is available to students who seek graduate degrees at UF's 13 research and education centers, which are part of the university's statewide Institute of Food and Agricultural Sciences.

The Simpson Family Foundation Graduate Scholarship Award Recipient is :

Matthew DiMaggio

Undergraduate Course Offerings:

(partial list)

Annuals and Perennials
Agriculture and Environmental
Quality
Selling Strategically
Principals of Agriculture Management

For Graduate
Course Offerings check
the UF/IRREC website:

www.irrec.ifas.ufl.edu

For full listing of UF courses visit: <http://www.register.ufl.edu/soc/>

Important Dates:

Spring Semester Classes.....January 7 through April 24
Martin Luther King Jr. Day Holiday.....January 21
Spring Break.....March 2 through 9
Final Exams.....April 27, 29-30, May 1-3

UF/IRREC Degree and Certificate Program Offerings:

Bachelor Degrees:

Environmental Management
Microbiology and Cell Science
Plant Science
Geomatics

Master Degrees:

Agroecology
Ecological Restoration
Environmental Science
Environmental Horticulture
Entomology and Nematology
Agricultural Education
and Communication
Family, Youth and Community Sciences
Fisheries and Aquatic Sciences

Certificates:

Undergraduate

Geomatics
Urban Pest Management
Landscape Pest Management
Pest Control Management

Graduate

Ecological Restoration
Non Profit Management
Sustainable Land Resource and
Nutrient Management
Soil Ecology Services
Wetland and Water Resource Management
Soil and Water Science