

Florida Coastal Everglades Long Term Ecological Research

News from the Sloughs



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Feature Article: Passing the baton Information management in new hands for FCE

For 16 years, Linda Powell has served as the information manager for FCE, a role that has proved critical to the development and management of the LTER database. Linda received her BS (95') and MS (98') in Geology from FIU, where she gained practical experience in remote sensing and GIS working under the flume project at FIU's Southeast Environmental Research Station (SERC). With the commencement of FCE LTER in 2000, Linda was the perfect fit to help facilitate the development and transfer

of data and information. Since then, Linda has served multiple functions within FCE, including the development and analog management of the website, as well as serving on the Executive Committee for Information Managers, and the Network Information Systems Advisory Committee (NISAC). Honored by the opportunity to help delegate working groups to solve issues in

informatics, Linda recognized the importance of her role to getting the data to the right people in the field. That is why when NSF asked for her "exit retirement plan" last year, Linda realized that the only person who could fill such a gap was Kristin Vanderbilt.

Kristin has served as the information manager for the Sevilleta LTER site in Albuquerque, NM for over 15 years. She became interested in LTER while analyzing the data for the HJ Andrews Experimental Forest LTER site for her Ph.D in Forestry Science (00') at Oregon State University. Kristin enjoys playing with the data and has a passion for detailed-oriented work. Like Linda, Kristin has served multiple functions within LTER, including serving as the NSF Review team for FCE, while working alongside Linda to develop



guidelines for best practices in informatics. Kristin said she is looking forward to visiting and learning more about the needs of FCE, and is optimistic of the data management, adding "Linda has an incredible system of documentation... I am fortunate to be her successor."

Passing the baton from Linda to Kristin is a win-win for FCE and the two long-time friends. Both concurred that this transition was the "perfect circumstance". We celebrate Linda's retirement and welcome Kristen to FCE!

FCE Spotlight: New Collaborator!

Dr. Cristina Staudhammer brings a breath of expertise as she joins FCE. From advancing models in carbon fluxes to forest structure and growth, her contributions will exceed that of gas bubbles! Staudhammer first started her career as a forest biometrician at the University of Florida in 2005, moving to the Department of Biological Sciences at University of Alabama in 2010. Over the last decade, her research has evolved to cover a broad range of statistical topics in ecology, such as mixed effects models, design and analysis of experimental data, analysis of time series data, and quantifying model uncertainty. Her research aims to promote better conservation and management of natural resources by developing a better understanding of the dynamics of natural systems.



Staudhammer first became involved with the FCE LTER in response to the need for more sophisticated models of the carbon dynamics data collected via EC studies in this system. One of her interests is in 'filling in' missing data, which is common in the Everglades due to stable nighttime atmospheric conditions. Staudhammer notes, "FCE is an exciting place to study more robust analysis methods in for EC data due to its unique environmental conditions and complex anthropogenic pressures" as she prepares for a new role as Co-PI in the exciting new colaboration with Dr. Steve Oberbauer and Dr. Greg Starr.

FCE Digestions: Hydrology Works!



The Water Working Group is focusing on measuring water balance parameters, water residence times and sea water intrusion in the FCE. Researchers seek to understand how groundwater and

surface water chemistry change in response to increases in freshwater inputs and sea level rise. Water Group researchers are working closely with the Modeling and Synthesis Group in trying to model water flow in both Shark and Taylor Sloughs. In 2015, the researchers found that groundwater discharge in the southern area of Taylor Slough is correlated with water levels in the upstream areas of Taylor Slough, particularly in the higher elevation areas of the Atlantic Coastal Ridge including Long Pine Key.

Pictured: Dillon Reio, FCE graduate student, samples a groundwater well in the Hole-in-the-donut area of Everglades National Park.

Student Spotlight: Flower in the Glades

Dr. Hilary Flower, pictured right, first fell in love with the Everglades when she first visited it as part of a hydro-field camp taught by Dr. Mark Rains. With a M.S. in geology, she had no



particular need for a PhD, but the idea of studying the Everglades began to pull her in, and she found herself enrolling in a PhD program to work with Dr. Rains. Her work centered around an abiotic portion of the phosphorus cycle in Taylor Slough, where the sediment/bedrock and the groundwater exchange phosphorus through sorption, and building on Dr. Rene Price's work on groundwaterrock interactions and freshwater-seawater mixing. Hilary notes, "I am extremely grateful to Dr. Rains and FCE for making it possible for me to continue Everglades research." She is now working as a postdoc with Dr. Rains, adding "this is my dream job!"

Service-to-Activism for Everglades Restoration



Last October, Bob Graham, Former United States senator and former Florida governor, along with his former press secretary Chris Hand, gathered with advocates, scientists, and public officials to discuss Everglades restoration. The service-to-activitsm workshop was organized by FIU, the Bob Graham Center for Public Service, the Florida Conservation Coalition, and 1000 Friends of Florida. FIU was selected by the Bob Graham center to host the event because it is home to the FCE LTER program. The 50 participants listened to presentations from Everglades science, restoration, policy and litigation, while

addressing issues relating to the Florida Water and Land Conservation Initiative. Each participant was partnered with a legislator and continues to work with the Graham Center to convey science to these parties as Everglades decisions are made. Through this workshop, FCE LTER recent grad, Jessica Lee, has recognized the importance of connecting science with policy and activism and plans to utilize lessons learned in her developing career.

2016 FCE AWARDS:



Student of the Year: Ben Wilson

Ben is a Ph.D. student working with Tiffany Troxler, Jenny Richards and John Kominoski. Ben is studying how the marsh ecotone responds to saltwater intrusion, and has been an integral part of the FCE and Seagrant experiments supported by NSF, SFWMD, ENP and Everglades Foundation. Ben has been a champion of FCE within the network, leading a carbon synthesis working group at the Ecological Society of American and at the Network All Scientists Meeting in Colorado.



Staff of the Year: Rafael Travieso

Rafa is the field and lab chief for FCE! He started working with Evelyn Gaiser at FIU in 2002, and then moved to Childers lab to manage field and lab activities for FCE. Now back in the Gaiser lab since 2007, Rafa takes care of FCE field instrumentation, site platforms and collects and maintains water quality and macrophyte data for the sloughs. Rafa is a jack-of-all-trades and generously helps FCEers with many aspects of field logistics and research.



Collaborator of the Year: John Kominoski

John became an FCE collaborator in 2012 when he was hired as Assistant Professor at FIU. He has been a part of the LTER Network for much longer, conducting research and serving in administrative roles in the Network. He has become an instant leader at FIU and this year has not only coordinated FCE experimental research at the Key Largo mesocosms, and led manuscript synthesis efforts, but also represented FCE as presenter and working group lead at the Science Council and Network ASM meetings.

Take Me to Your LTER: Lead Principal Investigator Address



Hi All!

Wow, we just completed our 15th All Scientists Meeting! It was terrific to see everyone and to hear from our working group leads about their progress and plans for synthesis. The working group sessions were particularly enlightening, and it was great to hear from our partners at the other Atlantic coastal LTERs during the productive coastal carbon discussion (thanks to Jim Fourqurean and Jose Fuentes for their leadership)! Mike Rugge corralled a host of volunteers into assorted jobs to make the meeting come off without a hitch, and we are ever grateful to Deering Estate for hosting us on their gorgeous grounds (nobody was directly hit on the head by a lizard this year!). We are also grateful to the SERC endowment for generously helping with meeting functions.

I wanted to make a special call-out to Susan ("Snewsan") Dailey, the creator of "News from the Sloughs". Susan has stepped down from her communications duties and we will dearly miss her smiley face, wonderful creative energy and commitment to FCE and LTER Network communications.

I'm pleased to announce that our newsletter production will continue under the talented leadership of Stephany Alvarez-Ventura. Stephany is a Program Manager for the School of Environment Arts and Society and will be working a small portion of her time on the FCE project to help produce our newsletter. Stephany is an FIU alumni and spent the last few years coordinating our Agroecology program. We are so glad to have Stephany on board, both at SEAS and the FCE LTER!

Best wishes to all!

Evelyn

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For more Florida Coastal Everglades LTER News and past newsletters - visit our <u>website</u>. Please send submissions for our summer newsletter by May 30, 2016 to <u>scaalvar@fiu.edu</u>. Please address questions or comments about this edition of the newsletter to: <u>scaalvar@fiu.edu</u>.

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