



- 10:50 am – 11:10 am      **Probing the Land Uptake of Anthropogenic CO<sub>2</sub> with Global Models.**  
Dr. Stefan Gerber  
Department of Soil and Water Science  
University of Florida
- 11:10 am – 11:30 am      **Fire in Calcareous Wetlands: Effects on Biogeochemistry and Greenhouse Gas Emissions.**  
Dr. Patrick Inglett  
Department of Soil and Water Science  
University of Florida
- 11:30 am – 11:50 am      **Carbon Sequestration in Grassland Ecosystems.**  
Dr. Maria Silveira  
Range Cattle Research and Education Center  
Department of Soil and Water Science  
University of Florida
- 12:00 pm – 1:10 pm      **LUNCH**

## **SESSION II – Oral Presentations**

### **282 – J. Wayne Reitz Union**

**Session Chair: Rupesh Bhomia**

#### **Post-Doc Fellow Presentation (1:15 pm – 1:30 pm):**

Quantitative Approach for Assessment of Phosphorus Loss Risk from Alaquod and Paleudult Soil Profiles.

**Authors:** *Debolina Chakraborty and Vimala Nair*

#### **Student Presentation (1:30 pm – 1:45 pm):**

Impact of Simulated Storm Surge on Organic Carbon Loss in Coastal Wetland Soils.

**Authors:** *Lisa G. Chambers and K. Ramesh Reddy*

#### **Student Presentation (1:45 pm – 2:00 pm):**

Optimizing Cultural Practices for Saving Water and Fertilizer for Rice-Maize Cropping System in Semi Arid Tropics.

**Authors:** *Dakshina Murthy Kadiyala, Yuncong Li, Rao Mylavarapu, M.D.Reddy, J.W.Jones, K.R.Reddy and G.B. Reddy*

**Student Presentation (2:00 pm – 2:15 pm):**

Dynamic Interactions between Commensal Bacteria and Opportunistic Pathogens of the Coral Holobiont.

**Authors:** *Cory J. Krediet and Max Teplitski*

**Student Presentation (2:15 pm – 2:30 pm):**

Effects of Phosphate Rock on Long-Term Arsenic Removal by *Pteris vittata*.

**Authors:** *Jason T. Lessl and Lena Q. Ma*

**Student Presentation (2:30 pm – 2:45 pm):**

Transferability of Soil Carbon Models across Regions and Scales within Florida.

**Authors:** *Xiong X., S. Grunwald, D.B. Myers, W.G. Harris, A. Stoppe, N.B. Comerford*

## SESSION III

### Student Presentations – Poster Viewing and Reception

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East and West Gallery, J. Wayne Reitz Union

3:00 pm – 4:00 pm **Poster Session I,**

a. Judging of Even Numbered Posters Will Occur During This Time

4:00 pm – 5:00 pm **Poster Session II,**

a. Judging of Odd Numbered Posters Will Occur During This Time

**Poster Titles & Authors:**

1. Drainable Porosity of Unconfined Aquifers during Evapotranspiration from the Shallow Water Table.  
*Subodh Acharya; R.S. Mylavarapu; J.W. Jawitz; J.W. Jones; L. Zotarelli; K.T. Morgan; W.G. Harris*
2. Performance of Global and Local Models in Predicting Soil Carbon at Different Scales in a Subtropical Watershed.  
*Julius B. Adewopo, Sabine Grunwald, Pasicha Chaikaew, Baijing Cao, Xiong Xiong*
3. Effects of External Copper (Cu) Loading and Liming on the Availability and Fractionation of Cu in Soils.  
*Bakshi, S., He, Z.L., Harris, W.G.*
4. Accretion and Storage of Phosphorus in Recently Accreted Soils (RAS) in the Stormwater Treatment Areas of the Everglades Basin.  
*R. Bhomia, P. Inglett, and K. R. Reddy*

5. Effects of Cu and Ca on Ciprofloxacin Transport in Saturated Porous Media.  
*Chen Hao, Bin Gao, and Lena Q Ma*
6. Bioremediation of DDE, DDD, and DDT in Sandy Soil from Site ZSS3027 in Field ZSE-J in the Lake Apopka North Shore Restoration Area  
*Ben Coppenger and John Thomas*
7. Assessment of Nutrient Reduction Capabilities of an Algal Based Technology for Pollution Control.  
*Kimberleigh Dinkins Patrick Inglett, PhD, Mark Clark, PhD, Mark Zivonovich, Allen Stewart, Robinson Bazurto*
8. Effectiveness and Mechanisms of Mercury Sorption by Biochars from Invasive Brazilian Pepper at Different Temperatures.  
*Xiaoling Dong, Lena Q Ma\*, Yingjia Zhu, Yuncong Li, and Binhe Gu*
9. Algal Bioremediation of Landfill Leachate Pretreated by Reverse Osmosis.  
*Scott J. Edmundson and Ann C. Wilkie*
10. Effects of Sources, Rate and Timing of Nitrogenous Fertilizers on Nitrate Leaching and Aesthetic Quality of St. Augustinegrass.  
*Rajendra Gautam, George J. Hochmuth and Laurie E. Trenholm*
11. Fluorescent Arsenic-Resistant Bacteria Enhanced Solubilization of Arsenic and Increased Growth of Arsenic Hyperaccumulator *Pteris vittata* L.  
*Piyasa Ghosh, Bala Rathinasabapathi, and Lena Q. Ma*
12. The Effect of Aquatic Vegetation on Water Quality in the Everglades Agricultural Area Canals.  
*Susanna M. Gomez, Jehangir H. Bhadha, Timothy A. Lang, Manohardeep S. Josan, Samira H. Daroub*
13. Anaerobic Digestion Potential of Organic Wastes from Small Farms.  
*Ryan E. Graunke and Ann C. Wilkie*
14. Perceptions of risk associated with living near the Koppers Superfund Site, Gainesville, Florida  
*Julia "Ky" Gress and Mihai G. Giurcano*
15. Nitrogen Mass Budget of a Silage Corn Field at the University of Florida's Dairy Research Unit in Hague, FL.  
*Rebecca Hellmuth and George Hochmuth*
16. Effects of Laboratory Combustion on Impacted and Native Plant Biomass from a Subtropical Calcareous Wetland.  
*Benjamin A. Hogue and Patrick W. Inglett*
17. Hydrological and Biogeochemical Controls on the Nitrous Oxide (N<sub>2</sub>O) Production and Consumption in Subtropical Isolated Wetlands.  
*J Hu, K S Inglett, M Clark, K R Reddy*

18. Soil Phosphorus Forms in Tree Island Ecosystems of the Central and Southern Everglades.  
*Daniel L. Irick, Yuncong Li, Patrick W. Inglett, Binhe Gu, Michael Ross, Willie Harris, and Alan Wright*
19. Estimation of Water Uptake using the Stem-Heat Balance Technique for 2- and 4-year old Citrus.  
*Davie Kadyampakeni, Kelly Morgan, Arnold Schumann, Peter Nkedi-Kizza*
20. Fire Effects on Nitrogen Cycle in Calcareous Wetlands of Florida Everglades.  
*Xiaolin Liao, Patrick W. Inglett, Benjamin Hogue, Cassandra Medvedeff, Kanika Sharma Inglett*
21. Using Polynomial Modeled LiDAR Elevation Data to Identify Wetland Boundaries.  
*William D. Mahler, L. Rex Ellis, and Travis C. Richardson*
22. Effect of Topsoil Created from Spodic Materials on Turfgrass.  
*Drew McLean, Amy Shober, and Rex Ellis*
23. Effect of Fire Residues (Ash and Char) on Microbial Activity, Respiration and Methanogenesis in Three Subtropical Wetland Soils.  
*CA Medvedeff, B. Hogue, PW Inglett*
24. Effects of Supporting Electrolytes and Fertilizer Mixture on Sorption Behavior of Phosphorus in Immokalee Soil Used for Sugarcane Production.  
*A. Muwamba, P. Nkedi-Kizza, K.T. Morgan and W. Harris*
25. Macro-Elements Concentration of Manures Deposited By Selected Large Herbivores in African Tropical Savanna Ecosystem.  
*L. W. Ngatia, P. W. Inglett, B.L., Turner, and K. R. Reddy*
26. Untapped Reservoirs: A Storage-Based Approach for Assessing Urban Water Availability & Vulnerability across the United States.  
*J.C. Padowski and J.W. Jawitz*
27. Subaqueous Podzolic Carbon Resulting From Sea-Level Rise.  
*Ashley N. Phillips, L. Rex Ellis and Todd Osborne*
28. Nitrogen Mass Balance in Potato Production: What it means to the Environment.  
*Rishi Prasad and George Hochmuth*
29. Evaluation of Nutrient Leaching From Simulated Residential Mixed Landscapes.  
*Zhixuan Qin, Amy Shober and Vimala Nair*
30. Linkages Between Pollutants and Physiological Processes in Fish Exposed to Typical Urban Waters.  
*Ignacio Rodriguez-Jorquera, K. J. Kroll, G. S. Toor & N. D. Denslow.*
31. Soil Morphological Indicators of Seasonal High Saturation along a Udult-Aquod Catena  
*Alexandra G. Rozin, Larry R. Ellis, and G. Wade Hurt*

32. Effect of Organic Soil Amendments and Continuous Tomato Monoculture on Arbuscular Mycorrhizal Communities.  
*Smith, Megan M., Graham, J.H., Chellemi, D., Ogram, A., Koenig, R.*
33. The Role of Roots and Litter in Maintaining Forest Soil Carbon.  
*Aja Stoppe, Nicholas Comerford, Eric Jokela*
34. Role of Arsenic-Resistant Bacteria in Enhancing Tomato Growth.  
*Rujira Tisarum, Lena Ma, Piyasa Ghosh, and Bala Rathinasabapathi*
35. Investigation of Alternative Sources of Inocula for Anaerobic Digestion.  
*Reginald Toussaint and Ann C. Wilkie*
36. Comparison of Extracellular Enzyme Activities in Everglades Stormwater Treatment Areas.  
*Christine M. VanZomeren, Rupesh K. Bhomia, Kanika S. Inglett, and K. Ramesh Reddy*
37. Screening of Plant Growth Regulators (PGRs) to Confer Plant Heat and Salt Stress.  
*Shengsen Wang and Arnold W. Schumann*
38. Characterization of Diverse Naphthalene Degradative Pathways among Soil Actinobacteria.  
*C. Weidow, A. Chauhan, and A. Ogram*
39. Utilizing Geostatistics to Increase the Efficacy of Sampling Protocols Used to Measure Soil Organic Carbon.  
*Kiara S. Winans, Pierre Goovaerts, Suhas Wani, K. Ramesh Reddy*
40. Colloid-Facilitated Hg Transport in Hg-Contaminated Soils: Effect of Ionic Strength, Humic Acid and Flow Interruption.  
*Yingjia Zhu, Lena Q Ma, Willie Harris, J.C. Bonzongo, and Fengxiang X. Han*
41. Towards Understanding the Impact of Floating Aquatic Vegetation on Farm Phosphorus Loads in the Everglades Agricultural Area, Florida.  
*Jehangir H. Bhadha, Samira H. Daroub, Timothy A. Lang, Manohardeep S. Josan, Susanna M. Gomez*
42. Effectiveness of Best Management Practices in Pb Stabilization and Weathering in Shooting Ranges.  
*Rui Liu and Lena Ma*
43. Enhancing Model-Data Symbiosis to Improve Global Carbon-Sink Predictions.  
*Stuart Muller and Stefan Gerber*
44. Effects of Chromate and Sulfate on Arsenic Uptake and Translocation by Arsenic Hyperaccumulator *Pteris vittata* L.  
*Letuzia M. Oliveira, Lena Q Ma, Luiz R. G.G.*