Session #23
Assessment of Contaminant Removal and Retention in Wetland Sediments
Organizer and Chair:
Dr. Anna Sophia Knox
Session Description:

- Natural wetland systems have historically served as water purification systems for many civilizations. More recently, purpose-built, constructed wetlands have been used for this purpose.
- Constructed wetlands are engineered wetlands designed and built to utilize the natural functions of wetland vegetation, soils, and their microbial populations to treat contaminants in surface water, groundwater, or waste streams.
- The ability of wetlands to improve many aspects of water quality has been recognized for many years, and the metal retention capability of wetlands has been effectively used in the U.S. to reduce levels of metals in runoff and drainage.
- The aim of this session is to bring together professionals from disciplines related to contamination in wetland sediments, contaminant fate and transport, and risk assessment of contaminated sediments.
- The session will address both natural and constructed wetland geochemistry and their effectiveness in removal and retention of contaminants.
### Thursday, April 26, 2018

**Symposium Registration Open**  
[Conference Center - Palm Foyer]

#### Morning Refreshments in Poster & Sponsor Display Area

#### Concurrent Sessions [8:30am - 10:00am]

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<td>8:30am</td>
<td>Royal Poinciana</td>
<td>Ibis</td>
<td>Egret</td>
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<tr>
<td>8:35am</td>
<td>Biogeochemical Processes in South Florida Ecosystems</td>
<td>Contaminant Removal in Wetlands</td>
<td>Wetland Soil Biogeochemistry in Created and Restored Environments</td>
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<td>8:50am</td>
<td>Mike Jerald</td>
<td>Anna Sophia Knox</td>
<td>Jacob Berkowitz</td>
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**Session 22**  
**Introduction & Overview**
- **Matt Huddleston**  
  Savannah River Site’s A-01 Constructed Wetland System: A Model for Sustainable Aquatic Risk Mitigation

**Session 23**  
**Metal Mobility and Retention in Constructed Wetland Sediment**
- **Anna Sophia Knox**

**Session 24**  
**Using DGT to Measure Bioavailable Metals in a Constructed Wetland Treatment System**
- **Michael H. Paller**

**Session 22**  
**Do Constructed Wetlands Remove Metals or Increase Metal Bioavailability?**
- **Xiaoyu Xu**

**Session 23**  
**Turning a Liability into an Asset: Can We Use the Invasive Apple Snail Pomacea Maculata in Biomonitoring of Metal Contamination in Freshwater Marshes?**
- **Sanjana Banerjee**

**Session 24**  
**Q&A**
Please follow these guidelines to ensure the success of our session

- The total time for each speaker is 15 minutes
- If a speaker fails to appear, we will not proceed to the next presentation. Instead, we will call for a break or discussion until the scheduled time for the presentation
- All cell phones should be turned off or silenced