## June 1-5, 2025 | Baton Rouge, Louisiana, USA

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|                     | Note: Agenda is subject to change. Press F5 to refresh your view in case an older version is cached in your browser.   |  |  |
|---------------------|--|--|--|
|                     | Sunday, June 1, 2025   |  |  |
| 3:00pm-<br>5:00pm   | Poster Presenters and Sponsors Set Up Displays   |  |  |
| 5:00pm-<br>7:00pm   | Symposium Registration Open  |  |  |
|                     | Monday, June 2, 2025   |  |  |
| 7:30am-<br>5:00pm   | Symposium Registration Open  |  |  |
| 7:30am-<br>8:30am   | Morning Refreshments   |  |  |
|                     | Opening Plenary  |  |  |
|                     | <u>MODERATOR</u>   |  |  |
|                     | <b>Dr. John White</b> , <i>Symposium Chair</i> , Associate Dean of Research, College of Coast & Environment Department of Oceanography & Coastal Sciences Louisiana State University,  Baton Rouge, Louisiana, USA |  |  |
| 8:30am-9:50am       | Welcome Remarks by Leaders from the Louisiana State University   |  |  |
| 8:30аш              | Dr. Robert Twilley, Vice President for Research and Economic Development   |  |  |
|                     | OPENING PLENARY PRESENTATION   |  |  |
|                     | <b>Dr. Denise Reed</b> , Professor Gratis, University of New Orleans,<br>Montegut, Louisiana, USA  |  |  |
|                     | Closing Remarks by Dr. John White  |  |  |
| 9:50am -<br>10:20am | AM Refreshment Break   |  |  |

# Monday, June 2, 2025

#### Concurrent Sessions - 10:20am - 12noon

|                   | Session 1  | Session 2  | Session 3   |
|-------------------|--|--|---|
|                   | Riverview A  | Governor Room  | Capitol Room  |
|                   | Contaminants/Metals in Wetlands  | Constructed Wetlands<br>(Part 1)   | Monitoring of Wetland Condition   |
|                   | <b>Jörg Rinklebe</b><br>University of Wuppertal<br>Wuppertal, Nordrhein-Westfalen,<br>Germany  | <b>Mike Jerauld</b><br>DB Environmental,<br>Rockledge, FL, USA   | Ronald Corstanje<br>Cranfield University,<br>Cranfield, Bedfordshire, UK  |
| 10:20am           | Anna Knox Removal and Retention of Copper and Zinc in a Constructed Wetland over 20 Years  | Mike Jerauld Typha Seedling Growth Models Provide Improved Assessment of Treatment Wetland Performance Limitations               | Kara Hall Assessing Aquatic Macroinvertebrate Communities in Wetland Reserve Easements in the Mississippi Alluvial Valley |
| 10:40am           | Shengsen Wang Biochar Mitigated Zerovalent Iron- Induced Methane Emissions in an Arsenic- Contaminated Paddy Soil: the Mechanism     |  | Avery Wissmueller Water Quality Assessment of Wetland Reserve Easements in the Mississippi Alluvial Valley                |
| 11:00am           | Adam Sochacki The Effect of Manganese Oxides and Ferric Hydroxides on the Treatment of Greywater in Unsaturated Constructed Wetlands | Julia Charest The Effect of Prescribed Burning on Nitrification-Coupled Denitrification in a Restored Chesapeake Bay Tidal Marsh | Jeffrey Hutchinson<br>Water Chemistry in Isolated Pools Along<br>an Urban Ephemeral Stream in South<br>Central Texas      |
| 11:20am           | Jan Vymazal Distribution of Heavy Metals in Plants Growing in Constructed Treatment Wetlands   | Natalie Donoso Reactive Materials for Enhanced Removal of Organic Micropollutants in Constructed Wetlands                        | Ronald Corstanje Using Long-Term Monitoring Datasets to Demine Wetland Resilience   |
| 11:40am           | <b>Jörg Rinklebe</b> Pollution Control in Wetland Soil and Water Around the Globe  | Maurizio Borin<br>Soil Evolution in an Agricultural Surface<br>Flow Wetland After 27 Years                                       | Discussion  |
| 12:00pm<br>1:15pm |  | Group Luncheon Buffet  |   |

# Monday, June 2, 2025

## Concurrent Sessions - 1:20pm - 3:00pm

|                   | concurrent sessions 1.20pm 5.00pm   |  |   |
|-------------------|---|--|---|
|                   | Session 4   | Session 5  | Session 6   |
|                   | Riverview A   | Governor Room  | Capitol Room  |
|                   | C Sequestration and GHG Fluxes in<br>Freshwater Systems   | Constructed Wetlands<br>(Part 2)   | Microbial Processes in Wetlands:<br>Responses to Environmental Changes<br>and Impacts on Biogeochemical Cycles  |
|                   | <b>Curtis Richardson</b><br>Duke University,<br>Durham, NC, USA   | <b>Kevin Grace</b><br>DB Environmental,<br>Rockledge, FL, USA  | Aixin Hou<br>Louisiana State University, Department of<br>Environmental Sciences<br>Baton Rouge, Louisiana, USA   |
| 1:20pm            | Curtis Richardson Pocosins: North America's Forgotten Peatlands for Climate Mitigation and Sea Level Protection                     | Scott Wallace Constructed Wetlands Performance and Challenges  | Bo Guan  Ecological Restoration Evaluation of Coastal Wetlands in the Yellow River Delta from the Perspective of Soil Microorganisms  |
| 1:40pm            | Hope Fillingim Tidal Freshwater Wetland Research on the Santee Experimental Forest - Hydrology and Carbon Dynamics                  | Ming Jiang Spatial and Temporal Evolution Patterns and Stability Maintenance Mechanisms of Iron-Bound Carbon of Reclaimed Wetlands       | Grace Cagle A Little Goes a Long Way: 1 °C Warming Alters Microbial Metabolic Potential in a Permafrost Peatland  |
| 2:00pm            | William Crumpton<br>Nitrous Oxide and Methane Production in<br>Wetlands Receiving Elevated Agricultural<br>Nitrate Loads            | Olivia Lemieux Assessing Salt Marsh Greenhouse Gas Fluxes by Planting Treatment Across Salinity and Elevational Gradients                | Mohd Manzar Abbas Impact of Oil Exposure on Antibiotic Resistance in Soil Microbial Communities of Gulf of Mexico   |
| 2:20pm            | <b>Hojeong Kang</b> Are Wetlands a Carbon Sink or Source? From Microbes to the Globe  | Shaelynn Kaufman<br>Leveraging Watershed Wetlands:<br>Optimizing Phosphorus Management<br>Strategies in Lake Erie Basin                  | Walker Marechal Understanding the Bacterial Community and the Relationship of Nutrients and Heavy Metals in Little Washita River Experimental Watershed Reservoirs, Oklahoma, USA |
| 2:40pm            | Pascal Badiou Greenhouse Gas Emissions From Wetlands in the Canadian Prairies: Impacts of Land-Use Change and Environmental Drivers | Kevin Grace Dissolved Organic Matter Optical Properties in Treatment Wetlands: Associations with Plants, Soils, ad Treatment Performance | Mikk Espenberg Below- and Aboveground Microbial Carbon and Nitrogen Cycles in the Congo Basin Peatland Forests and Grazed Savannas  |
| 3:00pm-<br>3:30pm |   | PM Refreshment Break   |   |

# Monday, June 2, 2025

|                   | Concurrent Sessions - 3:30pm - 5:10pm  |  |  |
|-------------------|--|--|--|
|                   | Session 7  | Session 8  | Session 9  |
|                   | Riverview A  | Governor Room  | Capitol Room   |
|                   | A Deeper Look at "Blue Carbon":<br>Factors, Forms, and Stability   | Carbon and Nutrient Cycling in<br>Wetlands and Open Water Receiving<br>Flows from Sediment Diversions-River<br>Reconnection                      | Coastal Biogeochemistry: Wetlands<br>and Hypoxia   |
|                   | <b>Lisa G. Chambers</b><br>University of Central Florida<br>Orlando, Florida, USA  | Angelina Freeman Louisiana Coastal Protection and Restoration Authority (CPRA) Baton Rouge, Louisiana, USA                                       | <b>John Andrew Nyman</b><br>Louisiana State University<br>Agricultural Center,<br>Baton Rouge, LA, USA                           |
| 3:30pm            | Marcelo Ardon Disentangling the Effects of Salinity on Coastal Forest Carbon Balance: From Genes to Landscapes   | Angelina Freeman<br>Coastal Louisiana System-Wide Water<br>Quality Characterization  | Andrew Balder Machine Learning Evaluates Woody Plant Species Associations with Salinity and Hydrology in the Mobile-Tensaw Delta |
| 3:50pm            | Josh Breithaupt New Ground: An Evaluation of Factors That Influence Creation of Blue Carbon Soils in Restored and Natural Mangroves in Southwest Florida | Sibel Bargu Examining Hydrological Changes, Nutrient Dynamics, and Cyanobacterial Blooms in Louisiana's Deltaic Estuaries Over a Decade          | Lee Potter Implications of Phosphorus Loading Pathways on Harmful Algal Blooms in a Coastal Estuary                              |
| 4:10pm            | Amanda Spivak<br>Clear as Mud: Molecular Insights to<br>Landscape Patterns of Soil Carbon in<br>Coastal Wetlands   | <b>John White</b> Consequences of River Reconnection on Water Quality in Barataria Bay   | Christopher Anderson Evaluating Salinity Regimes and Material Exchange Across the Mobile-Tensaw River Delta                      |
| 4:30pm            | Anthony Mirabito<br>Blue Carbon Stability: Spanning Across<br>Geographical Boundaries  | Nia Hurst<br>Mississippi River Reintroduction into the<br>Maurepas Swamp: Reunited after 100+<br>years   | Austin Fox Tracking Diurnal and Episodic Hypoxia and Impacts to Nutrient Cycling in a Shallow, Well-Mixed Estuary                |
| 4:50pm            | Scott Jones When and Where Can Coastal Wetland Restoration Increase Carbon Sequestration as a Natural Climate Solution?                                  | Hongqing Wang<br>Modeling Carbon Fluxes in Forested<br>Wetlands in the Mississippi River Deltaic<br>Plain Under Various Hydrologic<br>Conditions | <b>John Andy Nyman</b> Managing Marshes with Drawdowns Can Reduce Elevation of Coastal Marshes                                   |
| 5:15pm-<br>7:00pm | Pos  | ter Session One and Welcome So   | ocial  |

|                    | Tuesday, June 3, 2025   |  |  |
|--------------------|---|--|--|
| 7:30am-<br>5:00pm  | Symposium Registration Open   |  |  |
| 7:30am-<br>8:30am  | Morning Refreshments  |  |  |
| 8:30am-9:50am      | Plenary Session  MODERATOR:  Dr. Todd Osborne, Symposium Co-Chair, University of Florida/IFAS Department of Soil, Water & Ecosystem Sciences, Wetland Biogeochemistry Laboratory, Whitney Laboratory for Marine Bioscience, St. Augustine, Florida, USA  8:30am - 9:10am  Stability Matters: A New Perspective on Wetland Soil Carbon  Dr. Lisa G. Chambers, Associate Professor, University of Central Florida  Aquatic Biogeochemistry Lab (ABL) and Soil and Sediment Lab (SASL)  Department of Biology and National Center for Integrated Coastal Research  Orlando, Florida, USA  9:10am - 9:50am  Understanding the Great Lakes: It is More than Just Phosphorus  Dr. Alan D. Steinman, Annis Water Resources Institute, Grand Valley State University  Muskegon, Michigan, USA |  |  |
| 9:50am-<br>10:20am | AM Refreshment Break  |  |  |

# Tuesday, June 3, 2025

#### Concurrent Sessions - 10:20am - 12noon

|                   | Session 10   | Session 11   | Session 12  |
|-------------------|--|--|---|
|                   | Riverview A  | Governor Room  | Capitol Room  |
|                   | Variability in C Fluxes  | Created and Restored Wetlands as<br>Nature Based Climate Solutions   | Plant Dynamics in Wetland & Aquatic<br>Biogeochemistry  |
|                   | Robinson W. Fulweiler<br>Boston University<br>Boston, Massachusetts, USA   | <b>Gail Chmura</b><br>McGill University,<br>Montreal, Quebec, Canada   | Victor Rivera-Monroy<br>Louisiana State University,<br>Baton Rouge, LA, USA   |
| 10:20am           | Genevieve Noyce Drivers of Spatial and Temporal Patterns in Methane Emissions from a Brackish Coastal Wetlands               | Alexandra Haak Assessing the Value of Constructed Wetlands with Emergent Vegetation as Nature Based Climate Solutions: Insights from Southern Ontario (Canada) | Meredith Theus The Role of Plant Diversity in Wetland Greenhouse Gas Emissions  |
| 10:40am           | Emily Wilson Meta-analysis Describing How Plant Species Composition Drives Salt Marsh Greenhouse Gas Fluxes                  | Rachel Plant Ebullitive and Diffusive Greenhouse Gases from Flooded Impoundments of New Brunswick and Nova Scotia (Canada)                                     | Tyler Provoncha Utilizing Biogeochemical Approaches to Aid in Pilot-Scale Seagrass Plantings in a Shallow, Well-Mixed Estuary                             |
| 11:00am           | Lena Champlin Seasonality and Marsh Zonation Drive Carbon Sequestration Patterns in New England Salt Marshes                 | Wendy Ampuero-Reyes Stocks and Rates of Organic Carbon Accumulation in Freshwater Impoundments of Eastern Canada   | Mikk Espenberg  Dynamics of N <sub>2</sub> O Emissions from  Amazonian Tropical Peat Forest and  Partitioning N-Processes using <sup>15</sup> N  Isotopes |
| 11:20am           | Elizabeth Watson Investigation of Salt Marsh Platform Vegetation Stress Indicators to Reveal Potential Marsh Loss Mechanisms | Samantha Mitchell Impacts of Smelting Pollutants on Long- Term Carbon Accumulation in Boreal Peatlands   | <b>Lorae Simpson</b> Seagrass Sediment Carbon in the Indian River Lagoon  |
| 11:40am           | John Rybczyk<br>Carbon Sequestration in the Oldest Tidal<br>Wetland Restoration Projects Along the<br>West Coast, USA        | Gail Chmura The Value of Salt Marsh Restoration Vs. Salt Marsh Conservation  | Victor Rivera-Monroy Assessing Landscape Cumulative Impacts of Natural and Human Disturbances on Mangrove Carbon Storage in Puerto Rico (Jobos Bay)       |
| 12noon-<br>1:15pm | <b>Lunch on Own</b> Explore and choose from a variety of local restaurants in walking distance from the hotel.               |  |   |

# Tuesday, June 3, 2025

## Concurrent Sessions - 1:20pm - 3:00pm

|                   | concurrent sessions 1.20pm 5.00pm   |  |   |
|-------------------|---|--|---|
|                   | Session 13  | Session 14   | Session 15  |
|                   | Riverview A   | Governor Room  | Capitol Room  |
|                   | Vertical and Lateral Carbon Fluxes in<br>Marshes  | Phosphorus Dynamics in Biosolids<br>Impacted Watersheds  | Biogeochemical Outcomes of NRCS<br>Wetland Conservation Practices at<br>Multiple Scales   |
|                   | Songjie He<br>University of Southern Mississippi<br>Ocean Springs, Mississippi, USA   | Todd Osborne University of Florida/IFAS Department Soil, Water and Ecosystem Sciences St. Augustine, Florida, USA                | Joseph Prenger USDA Natural Resources Conservation Service Beltsville, Maryland, USA  |
| 1:20pm            | Kanchan Maiti Seasonal Variabilities in Sources and Transport of Dissolved Organic Carbon from a Rapidly Eroding Coastal Estuary in Mississippi River Delta Plain | Andy Canion Biosolids Derived P in the St. Johns River Watershed: Implications for Legacy P Impacts                              | Eric Roy Phosphorus Retention in Riparian Wetlands Restored on Formerly Farmed Land: Key Drivers and Lessons for Future Restoration       |
| 1:40pm            | <b>Jiaze Wang</b> Methane Escape from the Deteriorating Mississippi River Delta   | Rex Ellis<br>Storage and Release of Biosolids P on<br>Poorly Drained Sandy Florida Rangelands<br>Receiving Biosolids Application | Jason Taylor Pop Up Wetlands: Enhancing Nutrient Retention on Agricultural Fields through Migratory Shorebird Stopover Habitat Management |
| 2:00pm            | Songjie He<br>Lateral Carbon Flux from a Saltmarsh:<br>Implications for Coastal Acidification and<br>Carbon Budget  | <b>Jonathan Judy</b> Application of Phosphorus Immobilizing Technology on a Legacy Biosolids Site                                | Justin Murdock Tradeoffs in Nutrient Retention and Greenhouse Gas Fluxes in Restored Agricultural Wetlands                                |
| 2:20pm            | Meagan Eagle Hydrologic Control of Carbon Fluxes: Field Observations Across an Elevation Gradient in New England Marshes  | Tracey Schafer Does Benthic Biogeochemistry Drive Algal Blooms in Shallow, Subtropical Florida Lakes?                            | Dan Dai Drivers of the Solute Concentration Seasonality in the Kissimmee River Watershed  |
| 2:40pm            | Camille Stagg Modeling Climate and Land Use Change Impacts on Net Ecosystem Carbon Balance in Coastal Wetlands  | <b>Todd Osborne</b> Surface and Groundwater P Export from Active and Historic Biosolids Application Sites                        | Kim Van Meter<br>Wetland Signatures: Use of MESA as a<br>Tracer for Agricultural Nitrate Runoff in<br>US Wetlands                         |
| 3:00pm-<br>3:30pm | PM  | Refreshment Break in Poster H  | Iall  |

# Tuesday, June 3, 2025

## Concurrent Sessions - 3:30pm - 5:10pm

|                   | Session 16   | Session 17   | Session 18  |
|-------------------|--|--|---|
|                   | Riverview A  | Governor Room  | Capitol Room  |
|                   | Belowground Carbon Dynamics in<br>Forested Peatlands and Mangrove<br>Systems   | Remote Sensing and Spatial Patterns<br>to Understand Wetland<br>Biogeochemistry  | Sulfur Cycling  |
|                   | Rachel Collin<br>Smithsonian Tropical Research Institute,<br>Panama City, Panama   | <b>Christopher Potter</b><br>NASA Ames Research Center<br>Moffett Field, California, USA   | <b>Jacob Berkowitz</b> US Army Engineer Research and Development Center Vicksburg, MS, USA                                    |
| 3:30pm            | Pradipta Biswas NUMAR 2.0: Advancing Soil Formation Modeling to Embrace Uncertainty in Marsh Environments  | Anthony Campbell<br>Global Review of Salt Marsh Change and<br>Carbon Emissions   | Jeffrey Cornwell Pyrite Oxidation and Formation During Dredged Material Wetland Creation: Poplar Island, Maryland, USA        |
| 3:50pm            | Denise Poveda Quantification of Belowground Biomass and Sediment Accretion in Mangroves of Different Coastal Environmental Settings of the Costa Rican Pacific Coast | Padmanava Dash Water Quality Time Series of the Mississippi Sound: Insights from Satellite and Unmanned Aerial Systems Imagery, and Autonomous Surface Vessel Data | Chelsea Duball Documentation of Iron Monosulfide Improves Hydric Soil Identification in the Arid Western U.S.                 |
| 4:10pm            | Alexandra Hedgpeth Surface DOC Fuels Belowground Respiration in a Neotropical Peatland   | Yang Wang Eutrophication and Dissolved Organic Matter Exacerbates the Diel Discrepancy of CO <sub>2</sub> Emissions in China's Largest Urban Lake                  | Benjamin Sulman<br>Modeling Wetland Redox<br>Biogeochemistry and Vegetation Function<br>at Site to Continental Scales         |
| 4:30pm            | Emilio Payo Monitoring Contrasting Belowground Processes as Drivers of Methane Dynamics in Dominant Tropical Peatland Vegetation Communities                         | Hafez Ahmad Long-term Water Quality Trends and Seasonal Drivers in the Western Mississippi Sound: A Remote Sensing and Machine Learning Approach                   | Yadav Sapkota Formation and Fate of Iron Sulfide Compounds Following Simulated Dredged Sediment Placement in Coastal Wetlands |
| 4:50pm            | Nicholas Girkin Plant Root Regulation of Tropical Wetland Greenhouse Gas Dynamics Across Contrasting Vegetation Types  | Christopher Potter Aerial Image Analysis of Changes in Wetlands between 2019 and 2023 in the Barataria and Breton Sound Basins of Coastal Louisiana                | Jacob Berkowitz Practitioner Guidance for Managing Iron Sulfur Compounds During Wetland Restoration                           |
| 5:10pm            | Brooke Conroy<br>Mangrove Organic Matter Accumulation<br>Related to Holocene Sea Level on a<br>Northeastern Australian Carbonate Island                              | Discussion   | Discussion  |
| 5:30pm-<br>7:30pm | Poster S   | Session Two and Networking Re  | ception   |

#### Wednesday, June 4, 2025 OPTIONAL FIELD TRIP: Tour the Bonnet Carré Spillway and Davis Pond Freshwater Diversion **\$95/person** (Early Cost, if registered on or before February 14, 2025) \$125/person (Regular Cost, after February 14, 2025) [Limit: 34 people] Sign up when registering. STOP ONE: The Bonnet Carré Spillway, built by the U.S. Army Corps of Engineers in 1935, helps reduce flood pressure on New 3:30am - 3:30pm Orleans by diverting excess Mississippi River water into Lake Pontchartrain. The structure consists of a mile-and-a-half-long concrete weir, and a six-mile spillway confined by levees which directs river water into the adjacent Lake Pontchartrain estuary. The 8,000-acre spillway is not only vital for flood management but also supports diverse wildlife and recreational activities and provides fresh water to the Lake Pontchartrain estuary. The field trip will involve a stop to see the spillway up close and to hear from the US Army Corp of Engineers about flooding management STOP TWO: Located in St. Charles Parish, the Davis Pond Freshwater Diversion is 15 miles upstream of the city of New Orleans, this project diverts fresh water, nutrients, and sediments from the Mississippi River into the Barataria Basin to reduce saltwater intrusion and combat land loss. The diversion improves salinity levels, boosts fish and wildlife productivity, and supports marsh vegetation for a healthier estuarine ecosystem. The area supports oyster, crab, shrimp, and fish reproduction, as well as food for fur-bearing animals and migratory waterfowl. The Field Trip will involve an airboat trip out into the receiving wetlands to see firsthand how river reconnection sustains deltaic wetlands. **OPTIONAL TOUR DAY: Enjoy a Self-Guided Adventure in New Orleans \$50/person** (Early Cost, if registered on or before February 14, 2025) \$80/person (Regular Cost, after February 14, 2025) [LIMIT: 55 people; once bus fills, no additional trips will be added.] Fee covers bus transportation only. Visit New Orleans on your own schedule. Sign up when registering. Bus departs Hilton Baton Rouge at 8:00am. Drops off at Café du Monde in New Orleans at 9:30am. Bus loads at the same location at 3:00pm; returns to Baton Rouge, arriving at the Hilton by 5:00pm. 3:00am - 5:00pm Don't miss the return bus home. It is ~\$96 to Uber back to Baton Rouge! Enjoy your day at your own pace, wandering through the picturesque Jackson Square, a hub of local art and historic beauty. Kick off your morning with the iconic powdered sugar beignets and a café au lait from the famous Café Du Monde. For a deep dive into history, visit the world-renowned National WWII Museum, the above ground cemeteries or take a trolley and visit the Garden District. With endless possibilities, the day is yours to explore at your own pace. Whether you choose to dive into the rich history,

Be sure to book advance tickets to any museums or locations you wish to visit at https://www.neworleans.com/.

immerse yourself in the sounds of local music, admire the handmade crafts, or simply indulge in the vibrant flavors, one thing is certain: in the Big Easy, the good times are always rolling!

#### **OPTIONAL EVENING EVENT: Evening Social and Golden Cattail Presentation at LSU Center for River Studies**

Hosted by Louisiana State University

**\$35/person** (Early Cost, if registered before February 14, 2025) **\$50/person** (Regular Cost, after February 14, 2025) [Limit: 80 people] Sign up when registering.

5:30pm - 8:00pm

|                     | Thursday, June 5, 2025   |  |  |
|---------------------|--|--|--|
| 7:30am-<br>8:30am   | Morning Refreshments   |  |  |
|                     | Conc   | current Sessions - 8:30am - 10:1   | 0am  |
|                     | Session 19   | Session 20   | Session 21   |
|                     | Riverview A  | Governor Room  | Capitol Room   |
|                     | C Sequestration and GHG Fluxes in<br>Coastal Systems   | Mangrove Encroachment<br>(Part 1 of 2)   | Nutrients, Water Quality and<br>Ecosystem Management<br>(Part 1 of 2)  |
|                     | <b>Rachel Hunter</b><br>Comite Resources, Inc.<br>Covington, LA, USA   | <b>Loraé Simpson</b><br>St. Johns River Water Management<br>District, Palatka, FL, USA                                 | <b>Dongqi Wang</b><br>East China Normal University,<br>Shanghai, China   |
| 8:30am              | Stephen Rigney<br>Comparing GHG Flux Dynamics in Low<br>and High Salinity Coastal Wetlands in<br>Southeast Australia | Michael Osland Tropicalization of Temperate Wetlands: Projections of Mangrove Range Expansion                          | Jianxu Wang Inhibition of Mercury Mobilization and Methylation in Paddy Fields by Regulation of Redox Potential                  |
| 8:50am              | Robert Bordelon<br>Methane Flux Pathways in Freshwater<br>and Saline Marshes of Louisiana                            | Ilka C. Feller Do Extreme Events and Hurricanes affect the Mangrove Fauna Differentially along a Latitudinal Gradient? | Craig Allan The Hydrology and Water Quality Dynamics Associated with an Urban Beaver Pond Complex                                |
| 9:10am              | Sophia Lingo<br>Greenhouse Gas Fluxes in an Active Delta<br>Across a Sediment Organic Matter<br>Gradient             | Samantha Chapman Nitrogen Limitation of Mangroves Encroaching into Marshes Depends on Hydrological Positioning         | Lucy Ngatia Post Hurricane Wood Debris Management Practices: Soil Particle Size Influences Carbon Thermal Stability and Nutrient |
| 9:30am              | Shawn Doyle<br>Quantifying Spatial and Temporal<br>Uncertainty in Coastal Carbon Dynamics<br>in Louisiana            | Corianne Tatariw Does Mangrove Encroachment Enhance Biogeochemical Resilience to Sea Level Rise?                       | Adam Siders Assessing the Influence of Breakwaters on Salt Marsh Denitrification Ecosystem Services                              |
| 9:50am              | Rachel Hunter Measurement of GHG Flux Across a Hydrologic Gradient in Louisiana Coastal Freshwater Forested Wetlands | Mercedes Pinzon-Delgado Tracing Nitrogen Pathways in Coastal Wetlands: The Role of MAOM in a Changing Landscape        | Yongjie Wang Mercury Properties and Transformations in Wetland Sediment of the ChangJiang Estuary                                |
| 10:10am-<br>10:30am | AM   | I Refreshment Break in Poster F  | Iall   |

# Thursday, June 5, 2025

## Concurrent Sessions - 10:30am - 12:10pm

|         | Session 22  | Session 23   | Session 24  |
|---------|---|--|---|
|         | Riverview A   | Governor Room  | Capitol Room  |
|         | Greenhouse Gas<br>Emissions from Inland Waters  | Mangrove Encroachment<br>(Part 2 of 2)   | Nutrients, Water Quality and<br>Ecosystem Management<br>(Part 2 of 2)   |
|         | <b>Yi-Jun Xu</b><br>Louisiana State University,<br>Baton Rouge, Louisiana, USA  | <b>Havalend Steinmuller</b><br>Louisiana Universities Marine<br>Consortium, Chauvin, LA, USA   | <b>Lee Potter</b><br>Louisiana State University,<br>Baton Rouge, LA, USA  |
| 10:30am | Anamika Dristi<br>A Decade-Long Trend in Dissolved<br>Carbon Dynamics and CO2 Fluxes in the<br>Lower Mississippi River                  | André S. Rovai Belowground Bio- and Necromass Allocation and Soil Shear Strength across Northern Gulf of Mexico Mangroves                      | Mumtahina Riza How to Increase Mineral-Associated Organic Matter Formation in Organic- Rich Soils                                 |
| 10:50am | Xingxing Cao Significant Contribution of Wastewater Treatment Plants to Dissolved Carbon Loading in China's Major River Systems         | Lukas Lamb-Wotton<br>Mangrove and Marsh Carbon Fluxes<br>Across Natural and Created Wetlands<br>within a Coastal Louisiana Barrier Island      | Glen Delaney Valuing Forested Wetland Ecosystem Services in the Voluntary Carbon Market - The Avahoula Climate Mitigation Project |
| 11:10am | Shu Chen<br>Characteristics of Greenhouse Gas<br>Emissions from Urban Rivers at Different<br>Time Scales                                | Anna Armitage Belowground Resilience to Freeze Damage in the Texas (Gulf of Mexico) Marsh-Mangrove Ecotone                                     | Paula Sanchez Garzon Floating Treatment Wetlands with Biochar to Treat Nutrients in a Stormwater Pond                             |
| 11:30am | Shengnan Wu Unraveling the Drivers of Bubble Methane Emissions in Urban Rivers: The Roles of Organic Carbon Temperature and Water Depth | Rachel Weisend<br>Microbe Mischief: How Microbes Drive<br>Cryptic Cycling in Mangrove Wetlands   | Xuan Thanh Bui Development of Floating Treatment Wetlands Coupled Aeration for Controlling Diffuse Pollution in Canal Waters      |
| 11:50am | Fanyan Yang Effects of Chlorinated Disinfectants on Greenhouse Gas Emissions from Urban Inland Waters                                   | Rachel Collin A Seasonal Comparison of Decomposition Rates Across 5 Semi-Urban Mangrove Sites Spanning a Range of Soil Types and Tidal Regimes | Taryn Chaya Can Mosquito Impoundments Be Leveraged to Treat Eutrophic Waters?   |

|                | Thursday Ives F 202F  |
|----------------|---|
|                | Thursday, June 5, 2025  |
|                | Buffet Luncheon and Closing Plenary Session - 12:15pm - 2:00pm  |
|                | MODERATOR  Dr. Jacob Berkowitz, Symposium Co-Chair, Louisiana State University and U.S. Army Corp of Engineers  Engineer Research and Development Center,  Baton Rouge, Louisiana, USA  |
|                | CLOSING PLENARY PRESENTATION  |
| 12:15pm-2:00pm | Debilitating Effects of Sea Level Rise on Tidal Freshwater Wetlands  Dr. Christopher Craft, Janet Duey Professor of Rural Land Policy Emeritus  Indiana University, Paul H. O'Neill School of Public and Environmental Affairs  Bloomington, Indiana, USA |
|                | CLOSING REMARKS  Dr. John White, Symposium Chair, Associate Dean of Research, College of Coast & Environment Department of Oceanography & Coastal Sciences Louisiana State University, Baton Rouge, Louisiana, USA  |
| 2:00pm         | Symposium Concludes   |