

Department of Earth & Environment
2025 Graduate Research Symposium



School of Environment, Arts and Society
College of Arts, Sciences and Education
Florida International University

Friday, February 21, 2025

Location: MARC Pavilion

Program Schedule:

Welcome and Opening Remarks

- 8:45 Jamal Julien, Lead Coordinator of the Symposium
- 8:48 Dr. Maruthi Sridhar Balaji Bhaskar, Graduate Program Director
- 8:51 Dr. Leonard Scinto, Chairperson, Department of Earth & Environment
- 9:00 Invited Speaker, Dr. Michael Heithaus, Executive Dean, College of Arts, Sciences & Education (CASE)

Graduate Student Presentations

- 9:15 – 10:45 am Session 1 – Oral Presentations
- 10:45–11:00 am Break
- 11:00 – 1:00 pm Session 2 – Poster Presentations
- 12:00 - 1:00 pm Lunch Break (Parallel with Poster)
- 1:00 – 1:45 pm Session 3 – 3 Minute Presentations
- 1:45 – 2:00 pm Break
- 2:00 – 3:45 pm Session 4 - Oral presentations

Awards

- 3:45 – 4:00 pm Judges deliberate.
- 4:00 – 4:30 pm Presentation of awards for best posters and best talks

Session 1 – Oral Presentations (9:15 - 10:45)			
Moderators: Moses Kiwanuka and Oluwatosin Orimolade			
Time	Name	Program	Presentation Title
09:15	Ivan Oyege	PhD	Spatiotemporal Monitoring of Corn Health in Small-Scale Fields of Miami-Dade County
09:30	Anurag Sharma	PhD	Demystifying Subsidence in Cape Canaveral
09:45	Abiodun Tosin-Orimolade	PhD	Assessment of Altamaha Tidal Marsh Fragmentation and Multi-decadal Change: Image Fusion Technique
10:00	Oriana Calagna	PhD	Latine Communities Involvement in The Miami Environmental Movement
10:15	Daniel Tucker	PhD	The Palmetto of Florida: Physical and Ecophysical Diversities with Histological Insights
10:30	Trishna Rayamajhi	PhD	Using Tiger Bycatch Data to Estimate the Occupancy of Dholes (<i>Cuon Alpinus</i>) in Chitwan and Parsa National Parks, Nepal
Coffee Break 10:45-11:00			
Session 2 – Poster Presentations (11:00-1:00, with first authors present)			
Moderators: Victor Alvarado, Jose Torres, Trishna Rayamajhi and Rachel Stovall			
Name		Program	Poster Title
Taylor Bonachea		MS	Poster 1 Noise Levels and Socioeconomic Status in Miami, FL
Milagros Munoz Salas		PhD	Poster 2 The Effects of Different Light Intensity and Water Quality on Anatomical Responses of <i>Musa haekkinenii</i>
Gabriel Montecchi		MS	Poster 3 Assessing Environmental Concerns of Tren Maya: Deforestation and Biodiversity Threats
Veronica Prelaz		PhD	Poster 4 Collection and Digitization of Underground Injection Control (UIC) Class V Non-ASR Well Data in Southeast Florida
Tania, Romero Bautista		PhD	Poster 5 Mapping Policies for Freshwater Ecosystems in The Peruvian Amazon
Sofia Lopez Farina		MS	Poster 6 Smart Fertilization: Sensor-Based Nitrogen

		Optimization for Lagerstroemia speciosa
Priyanka Belbase	PhD	Poster 7 Assessing Early Detection of Diseases in Dragon Fruit Plants Using Chlorophyll Peak Reflectance: A Spectral Analysis Approach
David Santamaria	PhD	Poster 8 Changing Human Perceptions of Introduced Hippos In Colombia, 2017-2023
Lael Licht	MS	Poster 9 Developing Methodologies: Exploring Archival Research, Literature Review Strategies, And Interview Structures For Tree Island Interest Groups
Michael Borbolla	PhD	Poster 10 What Drives Fisher Satisfaction? A Long-Term Analysis of Social Survey Methodologies in Biscayne National Park
Alemayehu Dula Shanko	PhD	Poster 11 Scenario Analysis of Flood Resilience Using System Dynamics Modelling: The Case of Florence
Holly Velligan	PhD	Poster 12 Understanding Host Range Expansion of Phytophthora nicotianae
Johanset Orihuela	PhD	Poster 13 Characterizing the Origin of Complex Organic Matter in Proto-Caribbean Basin Valanginian Weissert OAE Record Using Biomarker Data
Latonya Williams	MS	Poster 14 Hurricane Dorian's Influence On Forest Structure In The Disturbance-Dependent Pinus Caribaea Var. Bahamensis Pineyards Of The Abaco Islands (The Bahamas): Considerations For Forest Management
Patrick Ben Emoi Otema	PhD	Poster 15 Soil Conservation and Fertility Enhancement with Summer Cover Crops in South Florida
Demonica Brown	MS	Poster 16 Drivers of Nest Site Selection in Underground Nesting Parrot on Abaco Island
Md Tanvir, Hossain	PhD	Poster 17 Assessing the Causal Impact of Land Subsidence Risk on Housing Prices in Harris County: A Matching Strategy Approach

Tahsina, Zarin	PhD	Poster 18 Cross Scale Simulation of Compound Flooding during Hurricane Irma in the Southeast Florida
Kiara, Taibi-Briz	MS	Poster 19 In Planta Testing of Antagonistic Fungal Endophytes Against <i>Harringtonia Lauricola</i>
Victor, Alvarado	PhD	Poster 20 Developing a Novel SEM-Based Approach for Leaf identification of Rare Cycads in South Florida
Jose Torres	PhD	Poster 21 Lithostratigraphic And Geochemical Characterization of The Cenomanian-Turonian Of The Salada Formation At La Molinilla Creek, Middle Magdalena Basin Of Colombia
Moses Kiwanuka	PhD	Poster 22 Monitoring And Modeling Water Quality in Lake Okeechobee Using Sentinel 2 Sentinel-2 Multi Spectral Imagery
Rachel Stovall	PhD	Poster 23 Assessing The Performance Of Green Infrastructure In Reducing Runoff Volume, Pollutant Loading And Heat Index From Two Neighborhood-Scale Subbasins In Miami-Dade County
Mehnaz Ashraf	PhD	Poster 24 Comparative Effect of Heavy Metal Copper And Cobalt On Silkworm (<i>Bombyx Mori L</i>) Reared On Mulberry Leaves Under Laboratory Conditions
Conor Wolfe	PhD	Poster 25 Bioassay Based Screening of Tomato Endophytes Against <i>Verticillium dahliae</i>
Marie Isabelle Dubois	MS	Poster 26 Influence Of Plant Hormones Application on Metabolic Functional Diversity Of Basil Rhizomicrobiome
Tania Islam	PhD	Poster 27 A Systematic Review on Urban Flood Susceptibility Mapping: Remote Sensing, Machine Learning and Other Modeling Approaches
Lauren DeVito	PhD	Poster 28 Aquatic Carbon Fluxes from A Marsh Ecosystem Within The Florida Everglades
Carlos Tapia	PhD	Poster 29 Mapping Toxic Ornamentals: A Spatial Risk Evaluation of Invasive Plant Species in Florida
Luis Cendan	PhD	Poster 30 Testing the Effects of Two Regenerative Agriculture Techniques on Salt Stress

			Amelioration in Tomato Crops
Suraima Aragon Teclas		PhD	Poster 31 Understanding Tropical Cyclone Intensification using HWRF Ensemble Data Assimilation System (HEDAS) dataset from a Moist Static Energy Framework
Session 3 – Three Minute Theses (1:00 -1:45 pm). Moderator: Brandon Sosa, Conor Wolfe and Aujeeta Razzaque			
Time	Name	Program	Presentation Title
1:00	Luana Antunes Alexandre	PhD	A 30-Year Perspective on Traffic Emissions In Sao Paulo (Brazil): Have Environmental Policies Improved Air Quality?
1:05	Lauren Emer	PhD	Human Perceptions of an Urban Stream along a Longitudinal Continuum in Bogota Colombia
1:10	Noah Frade	MS	Urbanization And Plant Diversity Shape Neotropical Migrant Diversity in Miami’s Rockland Hammock Fragments
1:15	Blaire, Kleiman	PhD	Heat Stress Effects on Zucchini Squash (Cucurbita pepo) and its Bumblebee Pollinators
1:20	Penelope Leal	MS	The Mining of Women’s Bodies: Mining Extractions and Inuit Women in The Canadian Arctic
1:25	Julius Nunez	MS	How Does Global Warming and Climate Change Affect Plant Biodiversity
1:30	Aujeeta Shehrin Razzaque	PhD	Spatiotemporal Dynamics of Microplastic: An Emerging Pollutant in Gulf Of Mexico And Florida Keys
1:35	Kylie Gil	MS	Enhancing Growth and Nitrogen Utilization in Landscaping Plants Through Silicon Application
1:40	Jamal Julien	PhD	Valuing Nature-Based Solutions with A Machine Learning Approach For Flood Risk Prediction
Break 1:45-2:00 pm			
Session 4 – Oral Presentations (2:00 – 3:45 pm) Moderator: Trishna Rayamajhi, Rachel Stovall, and Mehnaz Ashraf			
Time	Name	Program	Presentation Title
2:00	Denise Garcia	PhD	Tracking Saltwater Intrusion Over Time: Geophysical Mapping in The Southern Everglades
2:15	Oluwatosin Orimolade	PhD	Intra-Annual Variability of Urban Effects on Stream Water Quality: Examination Of Watersheds In Atlanta Region

2:30	Dafrosa Kataraihya	PhD	Short-Term Sea Level Variability Forecasting: A Signal Decomposition and Deep Learning Approach
2:45	Anthony Duarte	PhD	Global Trends of Tropical Cyclone Intensity Change
3:00	Brandon Sosa	PhD	Quarry-Based Grow-Out: A Novel Approach to Caribbean King Crab Mariculture For Reef Restoration
3:15	Monnica Cardona	PhD	Modeling The Influence of Groundwater, Tidal Factors, Pluvial, And Surface Hydrological Characteristics In Urban Flooding: The Case Of Chicago.
3:30	James Sturges	PhD	Multi-Decadal Community Trajectory Analysis of Everglades Fish Assemblages
3:45-4:00 pm Judges Deliberate			
4:00 – 4:30 pm Presentation of awards for best posters and best talks			
4:30 pm – 5:00 pm Reception			

Awards

A panel of judges will announce the winners at 4:00 PM. Awards for best oral presentations, best posters, and best 3-minute talks will be given in both the MSc and PhD cohorts. Best Poster, Best Oral Presentation and Best Three-Minute Thesis awardees, plus runners-up will receive a certificate and monetary award.

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