

Florida Atlantic University

# 2021 Annual Environmental Science Retreat

April 16, 2020 ● 9:00 AM −12:30 PM & 2:00PM− 4:00 PM
A Virtual Meeting to Highlight Student Research
and Emerging Trends for Environmental Science Professionals

## Agenda

#### 9:00AM-12:30PM Student Research Presentations

During the morning session, students will be present in their assigned breakout rooms to share their poster or slideshow and talk with attendees and judges.

9:00 – 9:30 Willow Hearne, Jose Grisales

9:30 - 10:30 Timothy Johnson, Amber Moore

10:00 – 10:30 Katherine Buckman, Lauren Melanson

10:30 – 11:00 Chris Hanson, Natalie Faron

11:00 – 11:30 Rachel Larson, Jeffery Herr

11:30 – 12:00 Lizzie McNamee, Jeffrey Sommer

12:00 – 12:30 Lilybeth Moreno

Winners of the **2021** Charles E. Roberts Environmental Science Research Award will be announced April 19 on the Environmental Science website

### 2:00PM – 4:00PM Keynote Speaker and Panel Discussion

2:00 - 2:15 Welcome, Dr. John Baldwin

Interim Director, Environmental Science Program

## 2:15 – 3:00 Keynote Address, Dr. Jacob Berkowitz

The US Army Corps of Engineers and natural resource management: Emerging trends in environmental science and opportunities for student engagement

#### 3:00 – 4:00 **Panel Discussion**

From class to career: A panel discussion engaging students and professionals Jacob Berkowitz, US Army Corps of Engineers, Vicksburg MS (moderator)

Kristen Hart, US Geological Survey, Fort Lauderdale, FL

Nia Hurst, US Army Corps of Engineers, Vicksburg MS

Jon Jones, Wright Water Engineers, Denver CO

Lorene Lynn, Red Mountain Consulting, Palmer AK Wei Wu, University of Southern Mississippi Gulf Park

For more information and to register, go to http://science.fau.edu/envirosci/

# The US Army Corps of Engineers and natural resource management: Emerging trends in environmental science and opportunities for student engagement

**Dr. Jacob Berkowitz** is a senior soil scientist and the team leader for wetlands research at the US Army Engineer Research and Development Center. Additionally, Dr. Berkowitz holds faculty appointments at several universities. He is a Certified Professional Soil Scientist and a Professional Wetland Scientist. His research focuses on ecological assessment and restoration, biogeochemistry, and the improving approaches to wetland and aquatic resource management. Dr. Berkowitz has conducted wetland research in >40 states; resulting in >85 peer-reviewed journal publications, technical reports, and book chapters examining wetland processes in wide variety of landscapes ranging from the Florida to the North



Slope of Alaska. Recent projects include the evaluation of ecological restoration trajectories in the historic Mississippi River Valley floodplain, development of novel assessment approaches in coastal wetland and aquatic environments, and the investigation of soil physical and microbial community responses to variety of wetland management scenarios.

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Beginning with the Revolutionary War, the US Army Corps of Engineers (Corps) has supported both military and civil works initiatives. This historically included the systematic drainage of wetlands on a massive scale (e.g., Everglades) and the establishment of >15,000 miles of levees disconnecting rivers from their floodplains (e.g., Mississippi River Valley). As the field of environmental science emerged, federal laws including the Clean Water Act (CWA) shaped the Corps current role as a natural resource management agency responsible for regulating activities impacting wetland and aquatic resources. Today, Corps researchers are developing innovative approaches to ecosystem restoration, and investigating the effects of anthropogenic landscape scale alterations on ecosystem functions and services. The importance of these research topics has been elevated by projections of sea-level rise and climate change, major drivers that will shape the future of

our coasts and waterways. Notably, many opportunities exist for students and young professionals to engage with the Corps.

Dr. Berkowitz's seminar will highlight these opportunities and identify emerging trends in environmental science that will influence student career paths over the coming decades.

A student career panel discussion will convene at the conclusion of the seminar, allowing students to engage with a diverse panel of professionals from private industry, government, and academia.