

# Claire Kemick

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## Education

**Tulane University, New Orleans, LA | Current**

**Graduate Research Assistant, River-Coastal Science and Engineering**

**University of Pittsburgh, Pittsburgh, PA | April 2023**

**Bachelor of Science in Environmental Science, Minor in Architectural Design**

## Current Research

**Graduate Research Assistant, Meselhe Lab**

**Drought, Salt-Wedge Frequency, and Resilience Planning in the Lower Mississippi River**

Conducting a historical analysis of droughts and salt-wedge intrusion in the Lower Mississippi River (LMR), emphasizing the impacts of low discharge and salinity on water supplies in Southern Louisiana. This analysis includes understanding alterations to the LMR system due to dredging, seal-level rise, and outlet water losses.

## Teaching Experience

**Instructor, Boys at Tulane in Stem & Girls in Stem at Tulane | 2023 - Current**

**"Why Do Rivers Wiggle?" Workshop**

- Led an interactive workshop for elementary-aged students using the EMriver stream model to demonstrate river meandering and natural hydrodynamic processes.
- Teach students how rivers form meanders and how environmental factors, such as vegetation and human interventions (e.g., dams, revetments, agricultural management), influence river systems
- Engaged students in hands-on activities, encouraging observation, critical thinking, and discussions on how human actions affect river behavior and surrounding ecosystems

**Instructor, High School Enrichment Courses | July 2024**

**Climate Change & Coastal Engineering**

- Delivered lessons on climate change science, the impact of rising sea levels, and coastal engineering challenges, engaging students in real-world issues and solutions.
- Facilitated interactive projects where students analyzed climate data, discussed the effects on coastal communities, and collaboratively proposed strategies for resilience, sustainability, and climate adaptation.
- Encouraged teamwork and critical thinking, guiding students to present innovative solutions for mitigating climate change and protecting vulnerable coastal areas.

## Conference Posters & Presentations

**Kemick, C., Khalifa, A., Kelin, H., Meselhe, E., Allison, M.; (2024). Analysis of Drought Events in the Lower Mississippi River (Poster). Lower Mississippi River Science Symposium. New Orleans, LA, USA**

**Kemick, C., Khalifa, A., Kelin, H., Meselhe, E., Allison, M.; (2024). Modeling the Stability of the Lower Mississippi River & Birdsfoot Delta (Poster). Young Coastal Science & Engineering. Québec City, CA**

## Skills

**Coding & Mapping:** Python, RStudio, ArcGIS

**Design:** Revit, Rhino (Grasshopper), AutoCAD, InDesign, Illustrator

## Professional Experience

### **Program Assistant for Member Outreach and Affiliate Organizations**

**Student Office of Sustainability, Pittsburgh, PA | July 2021—Present**

- Managed communication for 19 sustainability organizations, distributing monthly newsletters to 500+ students.
- Organized monthly meetings with ~70 members, fostering networking and awareness for campus sustainability efforts.
- Collaborated with other university offices to plan and execute the first Sustainability Career Panel featuring local experts.
- Developed the University's first sustainability alumni database, creating a resource for students to connect with alumni in environmental fields.

### **Engineering Scientific and Technical Intern**

**PA Dept. of Environmental Protection, Pittsburgh, PA | May 2022—Aug 2022**

- Coded over 1,300 public response comments regarding Pennsylvania's Environmental Justice Policy.
- Worked with engineers, policy specialists, and legal experts to develop responses and build interdisciplinary skills.
- Researched grant opportunities, creating content for monthly newsletters.
- Created information sheets on environmental justice topics, leveraging census data and GIS to identify Environmental Justice Areas in Pennsylvania.

## Leadership & Awards

Epsilon Eta, Delta Chapter: Environmental Honors Society

Student Sustainability Award

Office of Sustainability, University of Pittsburgh | 2023

## **Previous Research Experience**

### **Undergraduate Research, Gardner Lab**

Estimating riverine net primary productivity using Landsat, Pittsburgh, PA | Jan 2023—Present

- Developed methods for estimating gross primary production (GPP) in U.S. rivers using remote sensing.
- Built predictive models utilizing multiple linear regression to assess GPP across various rivers.

### **Undergraduate Research Assistant, Richards-Zawacki Lab**

Soil feedback and exotic plant invasions in riparian forests, Pittsburgh, PA | Jan 2022—April 2022

- Conducted soil analyses, measuring pH, water-holding capacity, and root colonization by mycorrhizal fungi.
- Investigated plant-soil feedback to assess the impact of exotic plant species on riparian forest ecosystems.