



# DAVIDSON FELLOWSHIP

## Margaret A. Davidson Graduate Fellowship Newsletter

This issue of the newsletter features the fellows conducting research at the Gulf of Mexico [national estuarine research reserves](#), as well as reflections on recent professional development.

---

## Fellow Highlights

---



**Philip Souza, Jr., University of Texas at Austin and Mission-Aransas Reserve, Texas**

*"I am grateful for the Davidson Fellowship because I believe it will give me the experience necessary to achieve my educational and professional goals in coastal conservation."*

**Project title:** Passive Acoustic Monitoring of a Dynamic Southeast Texas Estuary

**Importance:** How dynamic estuaries respond to disturbance events is an important predictor of how future estuaries will cope with climate change. Philip's research will assess changes in ecosystem health and function in response to disturbance events, informing policy aimed at improving resilience.

---

**Mai Fung, University of South Alabama - Dauphin Island Sea Lab and Weeks Bay Reserve, Alabama**

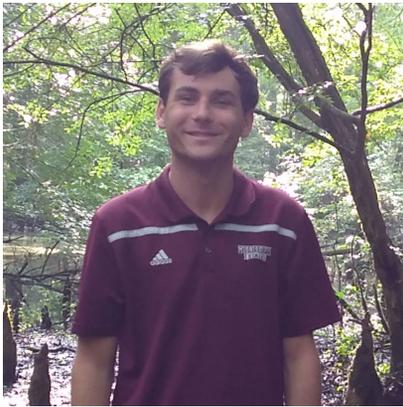


*"My passion for applied research stems from my desire for the environment to be a place that is healthy for all—human, animal, or plant."*

**Project title:** How are Phytoplankton Affected by Changing Environmental Conditions?

**Importance:** Understanding how phytoplankton react to impacts such as climate change is a critical part of preventing imbalances and maintaining a healthy ecosystem. This study will provide a model to understand and predict how phytoplankton blooms are affected by changing environmental conditions.

---



**Matthew Virden, Mississippi State University and Grand Bay Reserve, Mississippi**

*"I am interested in this research topic because it is focused on answering applied research (i.e., management) questions that are directly derived from end-user feedback."*

**Project title:** Understanding the Effectiveness of Restoration Techniques will Help in Future Project Planning

**Importance:** Matthew's project will evaluate current techniques of restoration approaches for nearshore habitat. Understanding the effectiveness of these techniques will aid in future restoration project implementations.

---



**Kira Allen, University of Central Florida and Apalachicola Reserve, Florida**

*"I am grateful for the Davidson Fellowship because it is a great opportunity to delve into an applied research project, and gain new skills and connections."*

**Project title:** The Shifting Salinity Ripple Effect

**Importance:** Increasing pressure by natural and anthropogenic factors threatens the careful balance between marine and freshwater input that contributes to the dynamic productivity of estuaries. Kira's research examines how the effects of shifting salinity regimes can ripple throughout an estuarine food web to affect many important species and overall ecosystem productivity.

---



**Kristine Zikmanis, Florida International University and Rookery Bay Reserve, Florida**

*"My passion for applied research stems from my parents and their environmental work in government. They imparted their focus on quality data to make good environmental remediation decisions to me. It made me see the importance of being able to provide good data to the right people for proper application."*

**Project title:** Impacts of Altered Freshwater Flow on Juvenile Bull Sharks in Southwest Florida

**Importance:** Sharks can shape the dynamics of their ecosystems, but are threatened by human changes to the environment. Kristine's research will help managers understand how restoration of an altered watershed will affect bull shark health, movements, and interactions with other organisms in coastal waters and inform future coastal restoration efforts.

---

## Reflections on Professional Development

---

**Science Communication** – Fellows developed their skills in explaining science, sharing data, and building trust with a variety of audiences.

*"The science communication course was by far the most helpful workshop I've ever participated in. I truly think it'll impact the way I communicate my science moving forward."*

*"I learned that it's important to identify why your audience cares about your presentation. I also appreciated having to put a slide with my main "nugget" or take-away at the beginning and end of*

*my presentation. It helped keep my presentation focused.”*

*“I think all of our recent professional development really pushed me to think more critically about the value of my work to the reserve community and our collaborators that stand to benefit from the research. Making important decisions on projects outside of my Davidson project made me see myself as an integral part of the NERR team.”*

**MAD Networking Challenge** – The fellows participated in a month-long networking challenge to establish a networking goal, connect with people with similar research interests, and build their professional brand.

*“I used this challenge as an opportunity to have a discussion with my graduate committee about how to establish my professional brand. We took time to discuss ideas that I have, pros and cons of different media and networking, how to communicate my research, and how to position myself for career success. I really appreciated hearing about their experiences using social media for science and have since found some professionals that I will use as an example for creating my own brand.”*

## About the Program

This fellowship program honors the legacy of Margaret A. Davidson, a visionary and pioneer in the world of coastal resource management. The Margaret A. Davidson Graduate Fellowship emphasizes professional development, mentoring, and innovation, and offers students admitted to or enrolled in a master’s or doctoral program the opportunity to conduct research within one of the 29 [national estuarine research reserves](#). For more information, and to see a list of the full 2020 to 2022 cohort, visit [coast.noaa.gov/nerrs/research/davidson-fellowship.html](https://coast.noaa.gov/nerrs/research/davidson-fellowship.html)

## Program Timeline

Call for applications for the 2022 to 2024 cohort open now! [Apply here](#).

December 10, 2021 – Applications due for the 2022 to 2024 cohort

August 1, 2022 – Start date for the 2022 to 2024 cohort

