April 2024

DAVIDSON FELLOWSHIP

Margaret A. Davidson Graduate Fellowship Newsletter

This newsletter features highlights of Margaret A. Davidson Graduate Fellows conducting research at the national estuarine research reserves.

Davidson Fellowship Webinar Series

Did you know we have a webinar series?

The Margaret A. Davidson Graduate Fellowship Webinar Series is hosted quarterly, serves as a platform for peer-sharing opportunities, and showcases the important work undertaken by current and former Davidson Fellows for the National Estuarine Research Reserve System.

You can find recordings of past webinars on our website, which currently include:

- Algal Toxins along Two New Jersey Estuaries (Taylor Armstrong)
- Conceptual and Technological Advancements in Visitor Use Management (Tyler Cribbs)
- Margaret A. Davidson Fellowship Experience Retrospective (Kira Allen, joined by her reserve mentor and university advisor)
- Salt Marsh Hydrologic Alteration and Restoration Using Runnels: Can We Save Our Marshes? (Hillary Marchwinski)
- Developing a DNA Metabarcoding Toolkit for Assessing Plankton Communities in Estuaries (Ashley Reaume)

Email *ocm.davidsonfellowship@noaa.gov* to receive updates about future webinars.

Research Highlight

Molly Wick was the 2020 to 2022 Davidson Fellow at the Lake Superior Reserve in Wisconsin.

Navigating Indigenous Data Sovereignty and University Open Research Policies

Our recent case analysis published in "Ethics & Human Research[1]" highlights how research universities may not have adequate policies to support collaboration with sovereign Indigenous communities. Indigenous communities in the United States have rights as sovereign nations affirmed by the United Nations' *Declaration on the Rights of Indigenous Peoples* to exercise control and ownership over all data and information generated by or from the tribes, tribal members, or tribal resources. Many Indigenous communities have established research sovereignty policies to exercise these rights in response to long histories of unethical practices in research involving Indigenous communities.

Meanwhile, many universities in the U.S. have "openness in research" policies to ensure academic freedom to publish without undue influence. These policies usually require that universities retain control of data collected for research.

In our Margaret A. Davidson fellowship project, we worked with a local tribe to include Native American participants in a community-wide study on the benefits of coastal and aquatic ecosystems to communities. The university's openness in research policy prohibited it from agreeing to the tribe's proposed data-sharing agreement, which delayed our project by almost a year. Eventually, with support from the university's Office for Native American Affairs, we were granted an exception. The tribe retained sole ownership of data and allowed university researchers the right to use the data for the study.

This experience sets an example for future partnerships between Indigenous communities and universities. Research institutions must respect tribal research sovereignty, regardless of university policy. It also highlights that open-research policies may not adequately address the case of partnerships with Indigenous communities. This can hamper collaboration, even when there is agreement between the researchers and tribal partners on goals and objectives. These hurdles may perpetuate the exclusion of Indigenous communities from the collaborative research process and potential benefits of research.

In this case, the university has since made progress to support researchers in ethically engaging with Indigenous communities, including establishing guidance for that work. However, to facilitate trust and collaboration, we recommend universities formally adopt both open-research policies that facilitate research with sovereign Indigenous nations, and principles for ethical research with those communities.

[1] Wick, M., Erickson, D., Hoffman, J., Johnson, L. and Angradi, T., 2024. "Navigating University Openness in Research Policy Inconsistent with Indigenous Data Sovereignty: A Case Analysis." Ethics & Human Research, 46(2), pp.2-15. *doi.org/10.1002/eahr.500202*

Fellow Highlights

Mary Strickland is the 2022 to 2024 Davidson Fellow at the Narragansett Bay Reserve in Rhode Island.

Shout out to Mary on her graduate research spotlight from Purdue University!

Mary is passionate about working with people and wants to pursue a career that taps both her science background and social science skills, and allows her to coordinate policy discussion with multiple stakeholders to solve pressing social-ecological problems. “I really want to be able to understand decision-making processes, because in the future I want to be at those tables,” says Mary.

Mary Bryan Barksdale is the 2022 to 2024 Davidson Fellow at the Chesapeake Bay Reserve in Virginia.

Mary's research challenges several paradigms within the coastal carbon field—namely the adherence to single-ecosystem, vegetated-ecosystem, and shallow-ecosystem studies that overstate the power of the coastal carbon sink along transgressing (i.e., landward-shifting) coastlines. This work sheds light on the ephemeral nature of blue carbon stored near or along open-ocean shores, and underscores the need for comprehensive, landscape-scale carbon budgets.

Check out her published manuscript in the journal *Nature Communications* to learn more.

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 30 national estuarine research reserves. For more information, and to see a list of the full 2022 to 2024 cohort, visit *coast.noaa.gov/nerrs/research/davidson-fellowship.html*.

Program Timeline

Call for applications is closed for the 2024 to 2026 cohort
(applications were due December 4, 2023)
May/June 2024 – Applicants notified of selection results
August 1, 2024 – Start date for the 2024 to 2026 cohort