The e-newsletter of the National Sea Grant College Program

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# Pacific Story Map Demonstrates Importance of Revitalizing Indigenous Mariculture Practices



Information about a multitude of Indigenous cultivation practices has been collected into a cohesive online repository. Supported by Washington Sea Grant, *Sea Gardens Across the Pacific: Reawakening Ancestral Mariculture Innovations* is a new interactive, "living" story map that synthesizes knowledge about Indigenous aquaculture throughout the Pacific region. The project shows these local initiatives are not one-off projects, but rather pieces of a global story. A story that is being told by Indigenous knowledge holders, and further amplified by diverse collaborators who created the story map.

Read more and see the story map



## Celebrate Black History Month with Sea Grant

In honor of Black History Month, learn about Black history from a coastal perspective with these resources from Sea Grant:

- Discover the maritime connections to the Underground Railroad with <u>Freedom Seekers lessons</u>, developed by Illinois-Indiana, Michigan, New York, and Wisconsin Sea Grant Programs.
- The National Sea Grant Law Center shares <u>information about</u> <u>"wade-ins"</u>, which were staged to protest segregated beaches across the country, and environmental justice.
- In <u>Maryland Sea Grant's Chesapeake Quarterly</u>, see how Black Marylanders have been integral to Chesapeake Bay communities through seafood entrepreneurship, sailmaking, aquaculture, oystering, and captaining their own vessels.
- From North Carolina Sea Grant, read about the first Black Keeper
  of a U.S. Lifesaving Service station and the all-Black Pea Island
  lifesavers, who inspired a generation of Blacks to join the Coast
  Guard.
- Learn about <u>lowcountry rice plantations and Gullah Geechee</u> <u>culture</u> with South Carolina Sea Grant Consortium.

# Search for Shipwrecks in the Great Lakes with Wisconsin Sea Grant-Supported Video Game

In the newly released game, The Legend of the Lost Emerald, supported by Wisconsin Sea Grant, players increase their Great Lakes literacy and critical thinking skills searching for shipwrecks inspired by real Great Lakes history. Geared for students in grades 4-6, the game can be played in English or Spanish. The site also includes Educator Resources for a guide to the game with vocabulary, standards supported, and discussion questions.



Play the Legend of the Lost Emerald



#### North Carolina Sea Grant ShellCast App Helps Growers Forecast Harvest Closures

A new online application, ShellCast, predicts temporary shellfish lease closures to aid growers. Lease closures are issued as the result of storm runoff polluting coastal waters and potentially contaminating shellfish, which can lead to illness if consumed. Development of ShellCast was funded by North Carolina Sea Grant.

Read about the development of ShellCast

### Connecticut Sea Grant Partners with Rhode Island Sea Grant Legal Program to Help Local Leaders Navigate Climate Change Questions

Did you know, Sea Grant's network includes lawyers working to address community needs? Connecticut Sea Grant partnered with Rhode Island Sea Grant's Legal Program to inform local leaders on some of the complex legal challenges surrounding climate change. Together, they produced a fact sheet series on issues specific to Connecticut case law and policy.







### Sea Grant Featured in 2021 NOAA Education Report

NOAA Education's annual report highlights some of the many accomplishments that the NOAA Education Council and broader NOAA Education community completed in fiscal year 2021. In the report, check out Sea Grant student-led projects like building a bioswale to reduce flooding impacts (Michigan Sea Grant) and creating a community library of data sensors to track pH and soil moisture (New Hampshire Sea Grant).

See the digital 2021 NOAA Education Report

#### Florida Sea Grant Shares Red Tide Strategic Communication Plan

At this month's University of Florida Water Institute Symposium, Florida Sea Grant shared suggestions for making red tide messaging more effective to help Florida residents, tourists and businesses make informed decisions and mitigate impacts of red tides. The information was based on their strategic communication plan, released in 2021.





# National Sea Grant Office's Dr. Charles Weirich Recognized by U.S. Department of Agriculture

Dr. Charles Weirich, an Aquaculture Manager in the National Sea Grant Office, was selected as a recipient of the 2021 Farm Service Agency (FSA) Administrator's Awards for Service to Agriculture to ensure U.S. Department of Agriculture programs are delivered efficiently, effectively, with integrity, and with a focus on customer service. Weirich was selected as a team member of the USDA's Seafood Trade Relief Program (STRP), for his engagement with Sea Grant extension agents on the STRP and FSA officials on the commercial fishing industry.

#### New Jersey Sea Grant Consortium Appoints Dr. Peter Rowe as Executive Director

Dr. Peter Rowe was recently announced as the newest Executive Director of New Jersey Sea Grant Consortium. Since 2019, Rowe has served as Acting Executive Director, supporting vital programming, using his experience to build a strong foundation for the organization, and guiding the Consortium through the ongoing COVID-19 pandemic.





#### Check out new Sea Grant Research Publications

<u>Piecing Together the Data of the U.S. Marine Aquaculture Puzzle</u> A study funded by Sea Grant synthesized and compared U.S. marine aquaculture data from USDA, NOAA, and state-level sources across the 23 marine coastal states, finding strong evidence that marine aquaculture has played an increasingly important role in marine coastal states, but also uncovering numerous data gaps and discrepancies between and within these sources.

A Simple, Fully Automated Shoreline Detection Algorithm for High-Resolution Multi-Spectral Imagery
Illinois-Indiana Sea Grant-funded scientists and engineers developed and validated a new fully automated procedure for shoreline detection from satellite images, with a success rate exceeding 99%. The new shoreline detection method could inform better shoreline evolution models, which may help coastal communities make informed decisions that improve coastal resilience.

<u>Tributary Loading and Sediment Desorption as Sources of PFAS to Receiving Waters</u> Researchers funded by Wisconsin Sea Grant demonstrated that tributary rivers feeding Lake Michigan play an important role in bringing the human-made group of chemicals known as per- and polyfluoroalkyl substances (PFAS) to the Great Lakes system. Findings from this study could be extrapolated to understand the conditions surrounding thousands of other tributaries that flow into the five Great Lakes, the world's largest source of fresh water.

<u>Tracking an Invasion Front with Environmental DNA</u> A new Washington Sea Grant-supported study shows that eDNA-based technique works as well in detecting the presence of green crabs as setting traps to catch the live animals. Results suggest these two methods could complement each other as approaches to learn where the species' range is expanding.

Explore more articles in the Sea Grant Collection at the NOAA Library

#### **Funding and Career Opportunities**

<u>Sea Grant Career Opportunities</u> Sea Grant has several job openings across the country, such as Science Communications and GIS Analyst Fellow with Lake Champlain Sea Grant, Workforce Development and Research Program Coordinator with Rhode Island Sea Grant, and Maryland Law and Policy Fellow with Maryland Sea Grant.

<u>Discovery Hall Programs Internship</u> Discovery Hall Programs, supported by Mississippi-Alabama Sea Grant Consortium, has two summer internship positions available for an undergraduate (junior, senior) or recent graduate from groups currently underrepresented in marine science and STEM education. This opportunity offers hands-on experience in environmental science education and Gulf of Mexico ecosystems. Deadline to apply is **March 18, 2022**.

<u>Woods Hole Sea Grant Girls in Science Fellowship</u> Woods Hole Sea Grant is offering a week-long fellowship for current sophomore and junior women from Massachusetts high schools, to promote diversity in Science, Technology, Engineering, Art, and Math and expose young women to a variety of marine careers. Applications are due <u>March 23</u>, 2022.

#### **Connections and Partner Updates**

<u>Interagency Sea Level Rise Technical Report</u> This month, NOAA along with other interagency collaborators released the Sea Level Rise Technical Report providing the most up-to-date sea level rise projections available for all U.S. states and territories. The updated data offers projections out to the year 2150 and information to help communities assess potential changes in average tide heights and height-specific threshold frequencies as they strive to adapt to sea level rise.

Ocean Literacy Resources NOAA Ocean Service Education is excited to announce the availability of the Ocean Literacy Guide, The Handbook for Increasing Ocean Literacy, the Ocean Literacy Scope and Sequence for Grades K–12, and the Alignment of Ocean Literacy to the Next Generation Science Standards. These materials present an extensive framework to share the vision of an ocean-literate society and the range of knowledge required to be considered ocean literate.

NSF Rotator Program Directors Opportunity The National Science Foundation is recruiting for three rotator program director positions to serve for three years. These positions will work with the Alliances for Graduate Education and the Professoriate (AGEP), Centers of Research Excellence in Science and Technology (CREST), Historically Black Colleges and Universities (HBCU-UP), Improving Undergraduate Stem Education: Hispanic Serving Institutions (HSI program), and Louis Stokes Alliances for Minority Participation (LSAMP). Positions are open until filled.

National Academies of Science, Engineering and Medicine Opportunity

The National Academies of Science, Engineering and Medicine is hiring two Associate Program Officers within the Board on Atmospheric Sciences and Climate. These positions will help lead and implement activities (e.g., studies, workshops) at the intersection of natural and societal challenges--such as extreme hazards, data / decision-making, equitable adaptation—with climate and global change. Applications are due by March 7, 2022.

<u>U.S. Department of Energy Energy Transitions Initiative Partnership Project</u> The U.S. Department of Energy's Energy Transitions Initiative Partnership Project works alongside remote, island, and islanded communities to transform their energy systems and increase energy resilience through strategic energy planning and the implementation of solutions that address their specific challenges. NREL is soliciting applications for the second year of technical assistance for remote, island, and islanded communities in the United States. Applications are due by **April 15, 2022**.

2023 Call for Nominations for the NOAA Hydrographic Services Review Panel Federal Advisory Committee
The panel advises NOAA on operations and research issues related to navigation, hydrographic surveying,
nautical charts, tides and currents, geodetic and geospatial data and measurements, Arctic priorities and
coastal data and resilience. Applicants should have expertise in marine navigation, port administration,
maritime shipping or other intermodal transportation industries, cartography and geographic information
systems, geodesy, geospatial data, physical oceanography, coastal resource management, including
coastal resilience and emergency response, or other science-related fields. Nominations are due via email
no later than April 15, 2022.

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