

The e-newsletter of the National Sea Grant College Program

#### September 2021

### Take a trip to the AquaFort with New Hampshire Sea Grant



Just offshore of New Castle, New Hampshire, Sea Grant researchers are teaming up with local fishermen and farmers to create a new model for sustainable, small-scale finfish aquaculture: The AquaFort. Funded by the Sea Grant National Aquaculture Initiative's 2018 aquaculture research awards, the AquaFort was constructed, deployed, and tested by a team at New Hampshire Sea Grant and the University of New Hampshire alongside local fishermen over the past few years. The platform is an integrated multi-trophic aquaculture system that allows multiple marine species to grow at the same time within and around a single structure, and it can help fishers generate additional income throughout the year. In this video by New Hampshire Sea Grant, learn more about the AquaFort and hear perspectives from local fishermen and entrepreneurs involved with the project.

See the video

# NOAA Sea Grant Liaisons address critical research areas across federal agencies

Sea Grant, in collaboration with U.S. Department of Defense, U.S. Department of Energy, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, and U.S. Geological Survey, announced six new partnership positions. The Sea Grant Federal Partnership Liaisons will integrate Sea Grant extension expertise with science, products and services from NOAA labs and other publicly supported scientific research programs. Focus areas for the new liaisons include climate resilience, offshore wind energy, aquatic invasive species, aquaculture opportunity areas, harmful algal blooms and community science for underserved communities.

Learn more about Sea Grant Liaisons



# Sea Grant selects "Food from the Sea" career program development projects

Sea Grant and NOAA's Office of Sustainable Fisheries awarded approximately \$900,000 of FY21 federal funds to support projects that will initiate "Food from the Sea" career development programs. With these funds, Sea Grant programs and partners will work collaboratively with members of the fishing industry to identify training needs and develop updated and/or new resources and programming to address those needs.

Learn about funded programs

# Multistate Sea Grant extension team awarded \$2.4 million to share, inform reef fish science

Sea Grant announced that a regional collaborative of Sea Grant fisheries extension specialists, university scientists and fisheries managers will receive \$2.4 million to develop and implement extension and outreach programming related to data and information from three large research projects focused on estimating the number of reef fish in the South Atlantic and Gulf of Mexico.



#### Read about the project



### Sea Grant announces three initiatives to protect freshwater resources and improve Great Lakes resilience

Sea Grant announced three new initiatives that focus on freshwater systems and management. Projects include examining contaminants of emerging concern along the East Coast, mitigating pollution resulting from runoff in the mid-Atlantic, and managing stormwater to reduce flooding in the Great Lakes. These efforts will be lead by Connecticut Sea Grant, New Jersey Sea Grant Consortium, and Illinois-Indiana, Minnesota and Pennsylvania Sea Grant programs.

See the initiatives

### Bareford named national Sea Grant Water Resources Lead

The Mississippi-Alabama Sea Grant Consortium announced a new two-year project that will develop a roadmap for Sea Grant water resources initiatives and improve communication and coordination on water resources efforts across the national Sea Grant network and among key partners. Karen Bareford, of the Mississippi-Alabama Sea Grant Consortium and The University of Alabama's Alabama Water Institute, will serve as the Sea Grant Water Resources Lead.

Learn about Bareford's new role with Sea Grant



### New research led by Texas Sea Grant will inform decisions on the fate of Gulf oil rigs

Sea Grant and the Bureau of Safety and Environmental Enforcement awarded



over \$795,000 to Texas Sea Grant and a team of researchers from Texas A&M University and LGL Ecological Research Services to produce information that could lead to the development of a decision-support tool modeling the ecological and economic effects of changing the composition of oil rigs in the gulf. Decommissioned rigs can either be removed or transformed into artificial reefs, which provide habitat to many marine species, including recreationally significant fish, such as red snapper, cobia, and greater amberjack.

Learn more about this research

# Sea Grant and NOAA Ocean Acidification Program projects to examine impacts of stressors on shellfish aquaculture

Sea Grant and the NOAA Ocean Acidification Program awarded more than \$2.4 million to support projects that will address the impacts of multiple stressors on and increase resilience in shellfish aquaculture through research and industry partnerships. These projects will expand collaborations between researchers and the shellfish aquaculture industry throughout all aspects of the scientific process.



See full project descriptions



# Washington & Oregon Sea Grant programs support new coastal resiliency research hub

The National Science Foundation funded a multi-institutional team, including Washington and Oregon Sea Grant programs, to work on increasing resiliency among Pacific Northwest coastal communities. The newly established Cascadia Coastlines and Peoples Hazards Research Hub will increase the capacity of coastal communities to adapt through community engagement and co-production of research, and by training a new generation of coastal hazards scientists and leaders from currently underrepresented communities.

Read about the new coastal resiliency hub

Practice preparedness year-round with National Preparedness Month resources from Sea Grant

### National Sea Grant Office's Alison Krepp to co-chair NOAA Social Science Committee

Congratulations to the National Sea Grant Office's Alison Krepp, who was recently appointed co-chair for the NOAA Social Science Committee! As cochair, Krepp will help further elevate the importance of social science topics at NOAA, such as service equity, social science data needs, and the service delivery framework. Krepp is the NSGO Social Science and Economics Lead and serves as the Program Officer for the Maine, New Hampshire, MIT, Woods Hole, and Rhode Island Sea Grant programs.



# Mississippi-Alabama Sea Grant fellow captures breadth and impact of extension work

In a recent blog post, Carey Schafer, a Science Policy Fellow with the National Academies Gulf Research Program, summarizes her year working in extension



with PLACE: SLR and the Mississippi-Alabama Sea Grant Consortium. Schafer describes finding her passion in extension and how extension work revolves around community building.

Read Schafer's blog

# Join Sea Grant at CERF 2021 professional development workshops

This November, join Sea Grant for two virtual, professional development workshops at the CERF 2021 conference:

- Stories of Science: Blending Complementary Ways of Knowing Enhances Results, features representatives from across the Sea Grant Network and Tribal and community partners to showcase ways to respectfully interweave traditional and local knowledge into research, outreach and education.
- Job & Fellowship Application Development for Early Career Professionals, hosted by Sea Grant's National Fellowships Manager, Maddie Kennedy, features representatives from the National Sea Grant College Program, NOAA Digital Coast, and other educational partners to share guidance on crafting a competitive application package. This workshop is free for the first 30 registrants!



#### Sign up for these and other workshops

### **Scientific Publications**

## Connecticut Sea Grant publication highlights response of copepods to simultaneous ocean warming and acidification

A new article in Nature Climate Change looks at the response of marine animal populations to climate change, specifically copepods. The article shares findings from Connecticut Sea Grant-supported research that a species of copepod can cope with climate change (ocean warming and acidification), however, its ability to adapt varies by generation. Copepods are small marine animals that are abundant, widely dispersed, and serve as major structural components of the ocean's food web. Impacts in the copepod population have ripple effects through the whole food web and the ocean's carbon sequestration capabilities.

#### See the article

## Louisiana Sea Grant and Pointe-au-Chien Tribe publish research, using traditional ecological knowledge to support adaptation planning

A new article in the Journal of Environmental Management highlights the partnership between Louisiana Sea Grant and the Pointe-au-Chien Indian Tribe to hone adaptive capacity to Louisiana's coastal hazards. Using remote sensing datasets and geographic information systems processes to represent aspects of the Tribe's traditional ecological knowledge, the study team developed methods for producing interactive maps that reflect local perceptions of landscape features within the Tribe's ecosystem-dependent livelihood base that contribute most to the community's physical vulnerability to coastal hazards. This case study is offered to consider how Indigenous communities are shaping their own coastal hazards mitigation planning efforts in line with their unique needs, cultural practices, and values.

#### See the article

### Funding and Career Opportunities

<u>Sea Grant Career Opportunities</u> Sea Grant has several job openings across the country, such as Director of Oregon Sea Grant, Professional Development and Aquaculture Education Coordinator with Maryland Sea Grant, and Administrative Assistant with Georgia Sea Grant.

<u>Georgia Sea Grant State Fellowship Program</u> Georgia Sea Grant is accepting applications for their 2021 State Fellowship that is modeled after the Knauss Marine Policy Fellowship Program. This year-long fellowship would involve working with the Jekyll Island Authority to develop and advance the institution's sustainability initiatives. The deadline to apply is **October 15, 2021**.

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

#### Learn How the Department of Commerce is Supporting the Blue Economy

NOAA Administrator, Dr. Rick Spinrad and, Assistant Secretary for Economic Development, Alejandra Castillo, invite you to a conversation on the Blue Economy, which relies on the sustainable use of ocean data and resources to support economic growth while preserving the health of marine ecosystems.

The Economic Development Administration is implementing a series of programs to equitably invest the \$3 billion it received from President Biden's American Rescue Plan Act to help communities across the country build back better. The series of programs, called **Investing in America's Communities**, was launched with <u>six Notices of Funding Opportunities</u> and a special \$300M Coal Communities Commitment.

During this conversation, Assistant Secretary Castillo will be discussing how communities can leverage **EDA's Build Back Better Regional Challenge** (\$1 billion) to spur their region's Blue Economies and revitalize their economies. Administrator Spinrad will be discussing NOAA's support of the Blue Economy, including the "New Blue Economy" – leveraging ocean data and information for sustainable business development in new and traditional ocean-based sectors. <u>Click here</u> to register for the **October 5** event.

**EPA Health and Climate Change/Environmental Justice Funding Opportunity** The U.S. Environmental Protection Agency (EPA), as part of its Science to Achieve Results (STAR) program, is seeking applications proposing transdisciplinary research to analyze environmental problems at the intersection of climate change, environmental justice (EJ), and vulnerable populations and lifestages. For information on eligibility, project specifications, or how to apply, <u>click here</u>. Applications are due by **November 16, 2021**. Register for the **October 5, 2021** <u>informational webinar here</u>.

<u>Alliances for Climate Action Virtual Forum Series</u> The Resilient Nation Partnership Network, FEMA and NASA will host the 6th Annual Forum on "Alliances for Climate Action", featuring more than 30 thought leaders across resilience, climate, equity and more every Wednesday in October from 12-2 pm ET. The forum begins **October 6, 2021**.

<u>Urban Flood Resilience Cyberseminar Series</u> Join the Consortium of Universities for the Advancement of Hydrologic Science Wednesdays this fall for "Perspectives on urban flood resilience: How different fields tackle one of the world's most prevalent disasters", a cyberseminar series that seeks to bring together individuals from different backgrounds who are addressing the complex problem of urban flooding. Register here for seminars taking place **now through October 13**.

NOAA Funding Opportunity for Integrated Research on Coastal and Ocean Acidification & Harmful Algal Blooms NOAA's National Centers for Coastal and Ocean Science Competitive Research Program and Ocean Acidification Program are soliciting proposals to address the growing need to understand interactions between ocean acidification and harmful algal blooms and their cascading impacts to U.S. coastal and Great Lakes ecosystems, communities and economies. The deadline for letters of intent is October 14, 2021.

<u>COME IN's Upcoming Charrette</u> The Coastal, Ocean, and Marine Enterprise Inclusion and Networkbuilding project looks forward to bringing together scientists, stakeholders, and partners from various coastal, ocean, and marine science disciplines on December 1 and 15. This two-day event will help identify challenges with and best practices for engaging in diversity, equity, inclusion, and/or justicerelated programming. For full consideration, register before 11:59 pm ET on **October 15, 2021**.

<u>NOAA Climate Program Office RISA 2022 Notice of Funding Opportunity</u> The NOAA Climate Program Office invites applications for the Regional Integrated Sciences and Assessments (RISA) 2022 Funding Opportunity. The RISA Program expands regional capacity to adapt to climate change and is holding four competitions under this opportunity. More information is available at the link above. Letters of intent must be submitted by **October 19, 2021**.

<u>NOAA Awards 35 Grants to Support Small Business Innovation Research</u> NOAA's Small Business Innovation Research (SBIR) Program recently awarded approximately \$10.7 million in grants to 35 small businesses to support the development of innovative technologies that support NOAA's mission and the U.S. economy. Topic areas included aquaculture, recreational and commercial fisheries, and citizen science and STEM education, among many others. The next NOAA SBIR funding opportunity will begin in **November**. To stay updated on upcoming funding opportunities, follow @NOAAinnovate on Twitter and join their mailing list (email NOAA.SBIR@noaa.gov with the subject "subscribe").

<u>NOAA Environmental Literacy Program Funding Opportunity</u> The NOAA Office of Education has issued a competitive funding opportunity for projects that develop the collective environmental literacy necessary for communities to take actions that build resilience to extreme weather and climate change in ways that contribute to community health, social cohesion, and socio-economic equity. More information is available at the link above. For Priority 1, the deadline for pre-applications is 11:59 pm ET on **November 1, 2021**. For Priority 2, pre-applications are not required and the deadline for full applications is 11:59 pm ET on **January 25, 2022**.

<u>NOAA Western Region Student Photo Contest</u> The NOAA Western Region has launched the "Picture Climate Change" student photo contest and is looking for images that showcase climate change in the western United States. Students in grades 5 through 12 may submit entries through **November 15, 2021**.

<u>NOAA's Office for Coastal Management Margaret A. Davidson Graduate Fellowship</u> The Margaret A. Davidson Graduate Fellowship is a two-year fellowship program that will place one graduate student at each of the 29 national estuarine research reserves. Through a research project, fellows address a key reserve management need to help scientists and communities understand coastal challenges that may influence future policy and management strategies. Applications are due by **December 10, 2021**.

NOAA Coastal Management and Digital Coast Fellowships NOAA's Office for Coastal Management recently announced the release of the FY 2022 Coastal Management and Digital Coast Fellowship request for proposals. These fellowship programs offer postgraduate students on-the-job education and training opportunities in coastal resource management and policy. The <u>application deadline for hosts</u> to submit projects is **October 15, 2021**. The application deadline for fellows to apply is **January 21, 2022**, and nominations from Sea Grant are due **February 18, 2022**.

OCM used a year-long pause during fiscal year 2021 to focus on fellowship program enhancements, including increasing minority participation. A team of state coastal program managers and mentors, Digital Coast partners, Sea Grant partners, and former fellows developed recommendations on how to strengthen the fellowship programs, many of which are focused on how to better incorporate diversity, equity, inclusion, and justice. The <u>final recommendations from this team can be found here</u>, and many of these recommendations will be incorporated into the fellowship process for the FY 2022 cohort of fellows.

The National Academies of MEDICINE





Ocean Decade U.S.'s Cross-Cutting Themes for U.S. Contributions to the Ocean Decade The federal government has asked the U.S. National Committee for the Ocean Decade to identify 3-5

cross-cutting themes that incorporate promising and innovative research concepts. These themes will be based on the body of submissions to the call for <u>Ocean-Shots</u> and will align with the overall goal of the UN Ocean Decade in supporting ocean science for sustainable development. In addition, the committee will connect the themes to U.S. ocean priorities, as identified in documents such as the National Science and Technology Council, Subcommittee on Ocean Science and Technology document, *Science and Technology for America's Oceans: A Decadal Vision* (2018). The themes identified by the committee will address compelling areas for public and private sector investment and provide opportunities for inter- and multi-disciplinary activities in support of ocean science. <u>Updates on this new consensus study will be</u> <u>posted on the Ocean Decade U.S. website.</u>

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