

Special Edition: 2019 Sea Grant Research

This month, we are putting the spotlight on Sea Grant's recent and notable research. You can access a complete list of recent publications [here](#).

As always, Sea Grant research projects can be searched on seagrant.noaa.gov/research and publications resulting from Sea Grant research can be accessed via the [Sea Grant Library](#). Additionally, funding opportunities and selected projects can be accessed at <https://seagrant.noaa.gov/Funding>.

713

Peer-Reviewed
Publications

1013

Graduate Students
Supported

1508

Researchers

314

Graduate
Degrees
Awarded

981

Undergraduate
Students
Supported

Metrics above were reported by Sea Grant programs in June 2019 for work completed February 2018 to January 2019. More at <https://seagrant.noaa.gov/research>.

Thousands of endangered white abalone released to bolster wild population as result of California Sea Grant-funded project



White abalone are a highly endangered species of marine snail that was overfished to near extinction and the remaining animals are now too few and far between in the ocean to allow them to recover. Over the past eight years, UC Davis Bodega Marine Laboratory scientist Kristin Aquilino and her team developed protocols to spawn white abalone in the lab and raise them up to adulthood. Aquilino is a Sea Grant funded scientist and member of California Sea Grant's statewide extension team. (Photo: CA Fish and Wildlife)

[Learn more](#)

Multi-state Sea Grant collaboration recognized among top contributions to environmental legal solutions for 2019

[Roads to Nowhere in Four States: State and Local Governments in the Atlantic Southeast Facing Sea-Level Rise](#)

Jones S.C. (GA SG), Ruppert T. (FL SG), Deady E.L., Payne H., Pippin S.J., Huang L., and Evans J.M.
Columbia Journal of Environmental Law, published April 2,

This article presents an analysis of coastal communities in four South Atlantic states—Florida, Georgia, South Carolina, and North Carolina—that are currently facing questions about how to protect property and infrastructure as sea levels rise and flooding increases. The article distills the findings of an interdisciplinary research project funded by the National Oceanic and Atmospheric Administration (“NOAA”), Florida Sea Grant, Georgia Sea Grant, South Carolina Sea Grant Consortium, and North Carolina Sea Grant. (Photo: Dorothy Zimmerman)



Study supported by University of Southern California Sea Grant poses new adaptation pathway for sea level rise mitigation



flood adaptation measures. Adaptation pathways such as this can be used to better inform decision makers about the robustness and economic desirability of their investment choices. (Photo: University of Southern California Sea Grant)

[An economic evaluation of adaptation pathways in coastal mega cities: An illustration for Los Angeles](#)

de Ruig L.T., Barnard P.L., Botzen W.W., Grifman P. (USC SG), Hart J.F., de Moel H., Sadrpour N. (USC SG) and Aerts J.C.

Science of the Total Environment, Published August 15, 2019

Uncertainty in sea level rise projections poses a major challenge to flood risk management and adaptation investments in coastal mega cities. This study uses Los Angeles County to demonstrate a new comparative economic evaluation method for

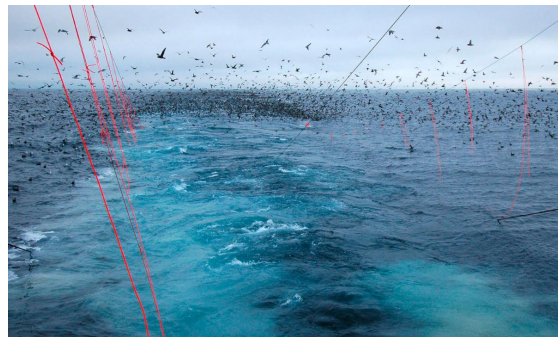
Washington Sea Grant Social Scientist Melissa Poe co-authors study presenting support for integrated risk assessments

[Integrated risk assessment for the blue economy](#)

Hodgson E.E., Essington T.E., Samhoury J.F., Allison E.H., Bennett N.J., Bostrom A., Cullen A.C., Kasperski S., Levin P.S. and Poe M.R. (WA SG)

Frontiers in Marine Science, Published September 26, 2019

With the anticipated boom in the ‘blue economy’ and associated increases in industrialization across the world’s oceans, new and complex risks are being introduced to ocean ecosystems. This publication provides a primer on risk assessment intended to encourage the development and implementation of integrated risk assessment processes in the emerging blue economy. Using a case study of the management challenges of whale entanglements in fishing gear on the United States west coast, this study demonstrates how transdisciplinary integrated risk assessments can better address complex environmental problems. (Photo: Washington Sea Grant)



Study supported by Louisiana Sea Grant informs future marsh restoration projects for carbon sequestration

[Factors influencing blue carbon accumulation across a 32-year chronosequence of created coastal marshes](#)

Abbott K.M., Elsey-Quirk T. and DeLaune R.D.



Ecosphere, Published August 1, 2019

Widespread loss and degradation of marshes due to anthropogenic and climatic changes affect their ability to function as blue carbon sinks, both through the loss of area and through alterations in biogeochemical processes. This publication identifies marsh species that may facilitate higher longer-term carbon accumulation in created marshes with the intention of informing future restoration project planning and mitigation of climate change. (Photo: Katherine O'Reilly)

Funding and Career Opportunities

[NOAA IOOS FY 2020 Ocean Technology Transition Project](#) now accepting proposals U.S. IOOS Program, in conjunction with NOPP, is seeking to fund projects, subject to the availability of funds, which advance new or existing technology-based solutions that address long standing and emerging coastal observing, product development, and data management challenges. Deadline: January 13, 2020

[Restore America's Estuaries Funding Opportunity](#) The U.S. Environmental Protection Agency (EPA) recently announced a \$4 million cooperative agreement with Restore America's Estuaries to help fund projects supporting National Estuary Program coastal watersheds and estuaries. Restore America's Estuaries will operate a competition that provides entities from across the country an opportunity to apply for funding for projects that will improve the health of our nation's waters.

The [2020 National Water Center Innovators Program: Summer Institute](#) is accepting applications through January 13, 2020. Applications are Open! Current and incoming graduate students and post-docs within three years of graduating with their PhD are eligible to apply. Accepted students will participate in an 8-week Summer Institute at the National Water Center in Tuscaloosa, Alabama June 8 through July 24, 2020. The 2020 Summer Institute will build upon last year's project themes of 1) coupled inland-coastal hydraulics; 2) parsimonious runoff generation modeling in different hydro-regions; and 3) hydroinformatics and computation in support of continental scale water prediction.

[Sea Grant Career Opportunities](#): Sea Grant has several job openings across the country, including several targeted fellowship opportunities.

[Ocean Acidification Funding Opportunity](#) NOAA's Ocean Acidification Program is soliciting proposals for collaborative projects of up to three years in duration that synthesize ocean acidification information at a regional scale (e.g. Large Marine Ecosystem, large estuary or collection of small estuaries, and state or collection of states in US waters) to determine where societal vulnerabilities to ocean acidification exist or are emerging, in order to provide actionable information for marine resource decision makers and/or bolster the resilience of the nation's Blue Economy. This funding opportunity will not support the collection of new chemical or ecological observations or species response data. Social science data collection is permitted. Letters of Intent are due January 24, 2020 at 11:59 pm ET.

[NOAA Coastal and Marine Habitat Restoration Grants](#) Four million dollars in Community-based Restoration Program funding available for coastal and marine habitat restoration in 2020. The Community-based Restoration Program supports restoration projects that use a habitat-based approach to rebuild productive and sustainable fisheries, contribute to the recovery and conservation of protected resources, promote healthy ecosystems, and yield community and economic benefits. Informational webinar December 5, 2019; Applications due January 8, 2020.

Connections and Partner Updates

[Join the Sea Grant Restoration Email List](#): If you are interested in exchanging updates and ideas with Sea Grant colleagues about all things restoration, email Kelly Samek to be added to our restoration email distribution list. kelly.samek@noaa.gov

[CERF Webinar to Feature Sea Grant's Maddie Kennedy](#): On January 14, 2020, Maddie Kennedy of the National Sea Grant Office will present on "What I Wish I Knew When I Was Applying to Fellowships!" as part of the Coastal and Estuarine Research Federation's (CERF) webinar series.

Seeking Nominations for the National Sea Grant Advisory Board

The National Sea Grant Office is currently accepting nominations to serve on the National Sea Grant Advisory Board, a federal advisory committee. Application review begins January 31, 2020.

[Read the Federal Register Notice](#)

[Learn more about the National Sea Grant Advisory Board](#)

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