

The **University of Southern California (USC) Sea Grant** program has been part of the National Oceanic and Atmospheric Administration's (NOAA) National Sea Grant network for over 50 years. USC Sea Grant serves the greater Los Angeles (LA) region, one of the nation's most populous and diverse areas, with nearly 19 million residents speaking over 140 languages, and home to the largest port complex in the nation.

With our **Urban Ocean** programmatic focus, USC Sea Grant has been and will continue to be a leader in pioneering solutions for the challenging issues associated with a culturally diverse range of perspectives in one of the nation's most urbanized coastal environments. The following are selected annual highlights within our four strategic focus areas. Learn more about our program at [seagrant.usc.edu](https://seagrant.usc.edu).

### Healthy Coastal Ecosystems

- Completed a **deep-ocean DDT+** research needs assessment, informing a \$5.6 million allocation in State funding to support cleanup
- Built capacity for statewide **Indigenous participation** through a sea level rise intertidal monitoring project
- Supported the creation of a new rapid **water quality forecast model**, allowing managers to provide accurate warnings to previously data-poor beaches
- Supported the development of new, portable and rapid **harmful algal bloom detection** technology
- Supported the investigation of whether **microplastics** can act as pathogen vectors in shellfish, gaining national media coverage



### Safe and Sustainable Seafood

- Partnered with aquaculture producers and a South Central LA community organization to pilot one of the only **'seed to consumer'** aquaculture pipelines in Southern California
- Partnered with Aquarium of the Pacific in a study on **opinions towards seafood farming** across 10 coastal states and British Columbia
- Educated over 550 people about **seaweed farming**
- Created multi-lingual materials to communicate **intertidal harvesting** guidelines
- Developed a public education program on the expansion of seaweed farming with **sporeless-kelp breeding** technologies







### Resilient Communities and Economies

- Hosted National Science Foundation-funded Southwest Regional People on the Move in a Changing Climate Workshop on **climate-induced human mobility**
- Demonstrated new **wave energy** technologies are cost-effective and adaptable in future climate scenarios
- Advanced climate change planning efforts and sea level rise adaptation processes for 12 jurisdictions through the **AdaptLA** program
- Supported 8-acre **sand dune restoration** with a new, affordable technique; now being applied elsewhere on the coast
- Modeled sea level rise-induced flooding impacts on vulnerable communities; other **sea level rise model** used in Caltrans State Highway System Management Plan
- Supported the demonstration of shoreline stabilization using **cobbles**; gained local and national attention
- Provided publicly accessible data for managers through a statewide study on **cliff erosion**; garnered federal, state, and media attention

### Environmental Literacy and Workforce Development

- Participated in a university-wide collaboration to author a book for a **STEAM-powered book** series with characters representing the Asian, Black, and Latinx communities
- Led the **California Naturalist certification** course to build workforce skills and diversify the interpretation and restoration fields
- Awarded a NOAA-North American Association of Environmental Education Collaborative **eeBLUE Aquaculture Literacy** Mini Grant for the project "Ocean Farmers"
- Partnered with **EmpowHer, Inc.** to develop and implement a marine science and social justice summer program for 23 female-identifying youth of color
- Led the expansion of **Los Angeles Conservation Corps** aquarist training in schools
- Facilitated a partnership between the **Marine Mammal Care Center** and the Los Angeles Unified School District for field trips
- Reached over **16,100 students** through both formal and informal education programming

