

# The Urban Ocean Program



## Climate Resilience for Coastal Communities

Our climate is changing in unprecedented ways and communities are planning for an uncertain future. USC Sea Grant leads a regional effort to foster resilience.

- Community outreach and engagement
- Vulnerability assessments
- Science translation
- Cross-jurisdictional planning
- New technology to visualize coastal impacts

## Bridging the Gap: Cultures, Research, Policy

USC Sea Grant builds capacity and connections across people, resources and knowledge to solve our most pressing urban ocean problems.

- Neutral broker of science information
- Partnerships and regional coalitions among governments, communities, and jurisdictions
- Integrate diverse voices in planning, management and policy decisions

## Urban Impacts on Ecosystem Health

How do communities balance ecological preservation with intensive human uses of a public resource? USC Sea Grant funds research along our urban coast.

- Beach erosion
- Harmful algal blooms
- Stormwater and wastewater
- Healthy ecosystems and MPAs
- Sea level rise adaptation
- Coastal wetlands

## Community-Based Science

USC Sea Grant fosters citizen science programs that enrich data gathering and strengthen relationships between researchers and the public.

- Urban Tides Community Science Initiative (sea level rise)
- HABWatch (harmful algal blooms)
- Monitoring beach ecosystems
- Measuring beach erosion
- MPA Watch (marine protected areas)
- Invasive species identification
- Los Angeles Coastal California Naturalist

## Seaports for the Future

Our urban ocean is home to the two busiest seaports in the United States. How are they managing to balance economic and environmental values?

- Maritime security
- Marine transportation economics
- Operational efficiency
- Alternative maritime fuels
- Air quality concerns
- Port development
- Conflicts between shipping and marine mammals

## Experiential Learning for Urban Residents

We strengthen urban communities' connection with the coast through our education initiatives. The broad range of programs, curricula and place-based learning reaches underserved youth, educators and families across California.

- Professional development for educators
- Next Generation Science Standards
- Bridging formal and informal education
- Aquaculture in the classroom
- Intergenerational learning
- High school marine lab on Catalina

