

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

