



# Southern California Coastal Ocean Observing System (SCCOOS)

*Producing, integrating, and communicating high quality data that helps ensure safety, economic and environmental resilience, and the sustainable use of the coastal ocean.*

## Ocean Data Types:

- Biological- Chlorophyll A, harmful algae blooms, nutrients, ichthyoplankton samples, zooplankton biomass, seabird surveys, acoustic backscatter
- Chemical- Alkalinity, CO<sub>2</sub>, dissolved inorganic Carbon, Aragonite Saturation, salinity, temperature
- Physical- wind speed & direction, wave height, period & direction, water level, ocean surface current speed & direction

## Relevant Tools:

- SCCOOS Data and Products Portal  
<http://sccoos.org/data/overview/>

An interactive map displays data station locations. Data and tools are developed from integrated real-time observations and historical records. Examples include glider missions, model forecasts, water quality, weather, harmful algal blooms and citizen science resources.

- Educational Resources, <http://sccoos.org/>

Current news items are featured on our homepage.

## Regional Example:

[sccoos.org/projects/stormphoto/](http://sccoos.org/projects/stormphoto/)

SCCOOS is leading a citizen science effort to photo-document coastal hazards like flooding to aid in validating science-based flood modeling and erosion efforts.

## Contact Information:

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*The SCCOOS region spans from Point Conception to the U.S./Mexico border.*



*(Left) Urban Tides and SCCOOS assisted in training locals to photograph erosion and flooding events.*

*(Above) A high tide and large wave combination at La Jolla Shores, CA.*



<https://www.facebook.com/SCCOOS>





# U.S. Integrated Ocean Observing System (IOOS®)

## Our Eyes on the Ocean, Coasts, and Great Lakes

### Ocean Data Types:

- Biological- chlorophyll
- Chemical- pH, CO<sub>2</sub>, dissolved oxygen
- Physical- wind speed and direction, ocean currents, wave height and period, air temperature, water temperature, salinity, air pressure, and water level.
- Biodiversity – Species presence/absence/abundance: phytoplankton, zooplankton, fish, coral, marine mammal, sea turtles, and more.

### Relevant Tools:

- Data Catalog: <http://data.ioos.us/>

Data portals integrate real-time observations with historical records, revealing climate variability and long-term trends. Ocean temperatures, sea level, and the saturation state (ocean acidification) are among the many climate variables that can be accessed through coastal ocean data portals. Using real-time observations, teachers can link their curricula and lesson plans to events in the news.

- Data Tools: <http://www.ioos.us/>

Access the IOOS Data Catalog and data tools, such as the Data Assemble Centers (DACs), the Environmental Sensor Map, the Coastal and Ocean Modeling Testbed, and much more.

- Educational Resources:

<https://ioos.noaa.gov/community/education/>

Description: Access to ways to use real data in the classroom, lesson plans, and links to regional resources.

### Description:

IOOS is our eyes on the ocean, coasts, and Great Lakes. We are an integrated network of people and technology gathering observing data and developing tracking and predictive tools to benefit the economy, the environment, and public safety at home, across the nation, and around the globe.



*U.S. IOOS is the national integrated ocean observing system, working with Regional Associations across the U.S., Caribbean, and Pacific.*



*U.S. IOOS Director Zdenka Willis talks to ocean observing students about their presentations while visiting Rutgers University.*

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