

Ocean Acidification Monitoring Prioritization Plan

Ocean acidification (OA) poses a threat to marine species and the coastal communities and industries that rely on them. Monitoring is key to documenting conditions to which species are exposed and forecasting future changes. This allows communities to better understand how the marine resources they rely on may be impacted by changing ocean chemistry.

About this Report

The Monitoring Prioritization Plan details how to guide U.S. government efforts towards monitoring that could be deployed to meet the gaps described in the [Ocean Chemistry Coastal Community Vulnerability Assessment](#). This plan describes how monitoring could address research needs and provide information on the threat that OA poses to coastal economies, ecosystems, and communities, with an emphasis on leveraging existing assets. The recommended monitoring approaches are relevant to the themes of 1) improving modeling efforts and trend analysis and 2) determining the vulnerability of biological resources.

Report Recommendations



Sustain the existing climate-quality OA network, including moored and shipboard time-series, allowing for validation of weather-quality observations.



Increase subsurface and benthic monitoring through use of autonomous vehicles, profiling instruments, and addition of bottom-moored sensors to existing infrastructure.



Develop weather-quality regional estimates of OA dynamics derived from proxy observations (e.g. oxygen, salinity), including satellite observations.



Augment existing water quality programs to measure OA, targeting sites near urban or agricultural areas and major rivers where runoff or pollution may contribute to acidification.



Build partnerships to improve OA monitoring in significant habitats, including estuarine and coastal habitats, and enable real-time sharing of this data.



Expand community science observing of OA and biological impacts in coastal areas.



Provide technical assistance to states, tribes, and industries (e.g., hatchery or aquaculture operations) so they can acquire and interpret OA data most relevant to their specific needs.



Expand co-collection of OA chemistry and biological data through cruises, autonomous monitoring, and moorings, leveraging current biological programs to integrate OA data.