

Integrated Ocean Acidification and Hypoxia (OAH) Monitoring Task Force

Building a West Coast OAH monitoring network to fill management needs through inventorying existing assets

The Pacific Coast Collaborative (PCC) and the federal Interagency Working Group on Ocean Acidification (IWG-OA) have partnered to foster a West Coast ocean acidification and hypoxia (OAH) monitoring network that is scientifically grounded and responsive to management needs. A Task Force was established to proceed toward this goal by building a comprehensive inventory of OAH-relevant monitoring efforts, from Alaska to California. The intent is for the inventory to represent current chemical, physical, and biological monitoring efforts for future information gap analysis and subsequent strategic monitoring investment. The inventory and any subsequent information products will be available to the public so that all interested parties can directly access this work.

Completing an inventory is implementing a primary recommendation by the *West Coast Ocean Acidification and Hypoxia Science Panel* report to establish an OAH monitoring network, published in April 2016, that can provide decision-support information to policymakers and managers throughout the West Coast region on OAH. The inventory, and the network it fosters, also support the intent and spirit of the *Global Ocean Acidification Observing Network (GOA-ON)* and the recently launched *International OA Alliance*, which calls on governments to advance scientific understanding of ocean acidification and take actions to plan for, adapt to, and mitigate ocean acidification in preparation for our changing oceans.

Vision for the inventory

The Task Force was charged to build an inventory to facilitate a regional understanding of how current monitoring addresses information needs, and to guide future investment in monitoring infrastructure along the West Coast. Such a monitoring network is targeted towards meeting key information needs of marine resource managers and policymakers. The inventory will integrate information from multiple perspectives and can be used to spotlight areas that currently fall short of being able to describe temporal or spatial trends in ocean acidification and hypoxia, and in the biological response to those conditions, yet are ripe for investment to better meet those needs.

We need your help!

In order to assess how well current monitoring (aka observing) efforts meet management needs, we request your help. We ask that you contribute information to the inventory so that it will comprehensively capture monitoring efforts along the West Coast. We also ask that you share this request for participation with other colleagues who are conducting relevant monitoring work. We envision that this wide-ranging outreach will not only provide an inclusive inventory of monitoring efforts but also identify a West Coast community of practitioners to help inform next steps. Instructions for completing and submitting your contribution to the asset inventory are enclosed.

Please participate in the inventory process so that the inventory is comprehensive across spatial scales and disciplines (physical, chemical, biological), to capture all monitoring efforts that can inform the management and policy decision-making relevant to ocean acidification and hypoxia.

How to participate

Please participate in the inventory effort by completing the following surveys:

- OAH Assets Comprehensive chemical/biological survey for OAH related parameters.
- Biology Details Additional details about the biological measurements.
- Cruise Specifics Format useful for specifics on ship-based measurements.

A spreadsheet format of the above surveys is also available from alex.harper@noaa.gov.

Why participate?

A successful inventory will highlight the value of existing efforts and opportunities where sustained support or expanded monitoring capability may best fill information gaps. A coordinated West Coast OAH network has payoff beyond the sum of its parts, both locally and beyond.

Next Steps

In subsequent stages, we will convene managers and decision makers to identify information needs, jointly meeting with monitoring experts, to conduct a gaps assessment and prioritize those gaps to inform future research and monitoring investment. The ultimate goal is to provide information on ocean acidification and hypoxia and biological responses to empower decision makers and managers to implement adaptation and mitigation strategies.

Background

In 2008, leaders from Alaska, British Columbia, California, Oregon, and Washington signed the *Pacific Coast Collaborative Agreement*, the first agreement that brings together the Pacific leaders to address the emerging issues facing ocean health.

The federal *Interagency Working Group on Ocean Acidification (IWG-OA)* was chartered in 2009 and is chaired by NOAA and co-chaired by NSF and NASA. The IWG-OA has representation from 13 agencies and engages with regional partners to promote informed investment in basic, multi-disciplinary, and applied ocean acidification research and long-term monitoring.

The West Coast Ocean Acidification and Hypoxia Science Panel (Panel) was convened in 2013 to bring together scientists (spanning from British Columbia to California) to generate synthetic, cross-discipline information products relevant to decision makers' needs to address ocean acidification and hypoxia (OAH). The Panel recommended that a West Coast monitoring program that meets management needs be built out and sustained. Further, the Panel identified the need to define gaps between monitoring efforts and management needs by building on existing efforts to complete a comprehensive inventory of existing oceanographic and ecological monitoring programs on the West Coast.

For more information, please contact the Task Force Coordinating Committee:



Alex Harper, Implementation Lead National Oceanic and Atmospheric Administration Alex.Harper@noaa.gov



Jan Newton, Science Chair University of Washington janewton@uw.edu



Jenn Phillips, Policy Co-Chair California Ocean Protection Council Jennifer.Phillips@resources.ca.gov



Caren Braby, Policy Co-Chair
Oregon Department of Fish and Wildlife
Caren.E.Braby@state.or.us