Announcing the IOOS Pacific Region Ocean Acidification Data Portal

The Pacific Regional Associations of the U.S. Integrated Ocean Observing System (IOOS) are pleased to announce the release of the new IOOS Pacific Region Ocean Acidification (IPACOA) data portal: www.ipacoa.org.

The aim of the portal funded by IOOS is to simplify regional ocean acidification data access to a single spot, as well as to increase the visibility and presentation features available for any one individual data stream. The portal provides ocean acidification relevant data from partners in industry, government, and academia who are involved with the IOOS regional ocean observing systems in the Pacific region: Alaska (AOOS), Washington and Oregon (NANOOS), Central and Northern California (CeNCOOS), Southern California (SCCOOS), and the Pacific Islands (PacIOOS).

Primarily caused by carbon dioxide emissions to the atmosphere, ocean acidification changes seawater chemistry such that the building blocks of many marine organisms' shells (calcium carbonate in the form of aragonite or calcite) are less available and less likely to remain in solid form. This change has been noted by shellfish growers in the Pacific region, resulting in financial loss.

A primary impetus of the IPACOA portal is to provide shellfish growers with real-time data enabling effective decisions regarding shellfish growing practices and adaptation strategies. The IPACOA portal features data from five shellfish hatchery/growing site monitoring systems developed by Dr. Burke Hales of Oregon State University. These monitoring systems, measuring ocean acidification variables such as the aragonite saturation state, have been recently installed at several Pacific coast sites: at Alutiiq Pride Shellfish Hatchery in Alaska, Taylor Shellfish Hatchery in Washington, Whiskey Creek Shellfish Hatchery in Oregon, Hog Island Oyster Co., in central California and, coming soon on-line, Carlsbad Aquafarm in southern California. The Alaska and California systems were funded through IOOS and the NOAA Ocean Acidification Program; the Washington and Oregon systems are supported through state legislature funds administered by the Washington Ocean Acidification Center and Oregon State University.

Ocean acidification poses a threat to marine ecosystems in general, as food web effects beyond shellfish occur. Another aim of the portal is to present both oceanic and nearshore ocean acidification monitoring data streams to foster scientific and management insights. The IPACOA portal features data streams from NOAA Pacific Marine Environmental Laboratory (PMEL) ocean acidification monitoring, a critical part of NOAA's Ocean Acidification Program, throughout the Pacific Ocean in addition to the shellfish grower data from nearshore locations. Additional ocean acidification relevant data streams from other industry, academic, and government partners within the five regional associations are being added to the portal; this number will increase over time.