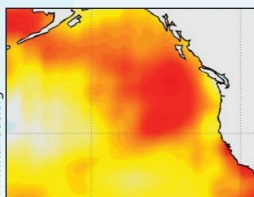


### Tracking the Blob

The Blob Tracker blog was started by AOOS as an online source of information for the public regarding this persistent marine anomaly. AOOS will continue posting on the blog as long as the Pacific SST anomalies continue to affect Alaska waters and resources. Check it out here: <https://alaskapacificblob.wordpress.com/>.



### Pacific SST Anomalies Workshop II

NOAA and the U.S. IOOS Program hosted the second workshop in Seattle January 20-21. More information can be found at: [www.nanoos.org/resources/anomalies\\_workshop/workshop2.php](http://www.nanoos.org/resources/anomalies_workshop/workshop2.php). Information on the first workshop held at Scripps in May 2015 can be found at: [http://www.sccoos.org/projects/anomalies\\_workshop/](http://www.sccoos.org/projects/anomalies_workshop/).

### Alaska Ocean Observing System

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[www.aoot.org](http://www.aoot.org)

## The "Blob" Continues to Impact Alaska Waters

A persistent large pool of unusually warm water in the North Pacific, referred to as "The Blob" by Nick Bond at the University of Washington, continues to influence the west coast of North America's ocean resources, combined with a strong El Niño event. Alaska is not immune to these Sea Surface Temperature (SST) anomalies – and the Alaska Ocean Observing System (AOOS) is taking an active role with its partners in tracking their consequences.

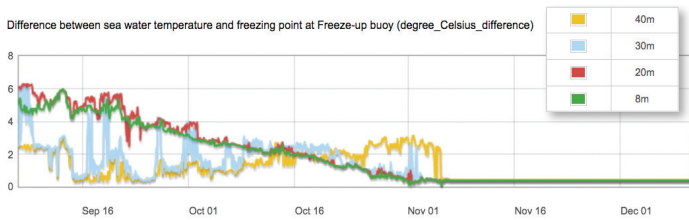
- AOOS helps fund annual ocean measurements along the Seward Line across the Gulf of Alaska shelf. In May 2015, University of Alaska (UAF) researcher, Russ Hopcroft, reported unusually high ocean temperatures, with SST anomalies approximately 1°C in the upper 100 m of the water column, and a larger occurrence of southern species of zooplankton for the region. A repeat survey in September revealed the temperature anomaly declined to about 0.5°C, the same magnitude as the temperature anomalies observed during the previous 1998 and 2003 El Niño events.
- AOOS also supports monthly research cruises in Kachemak Bay and lower Cook Inlet by NOAA's Kasitsna Bay Lab and the Kachemak Bay Research Reserve, as well as in Prince William Sound (PWS) by the PWS Science Center through the Gulf Watch Alaska Program. Kris Holderied, Angie Doroff and Rob Campbell all reported warmer than normal ocean temperatures and are now documenting larger-scale impacts up the marine food web with abnormally high occurrences of common murre strandings and deaths, as well as observed sea otter and whale mortalities. A host of federal, state and academic researchers are working to tease out the cause and effect of these events in relation to the Blob and El Niño.
- AOOS organized Alaska's first group of "Blob" experts and established a blog, "Tracking the Blob," on the AOOS website. AOOS helped host the first Pacific Anomalies Workshop at Scripps Institution of Oceanography in May 2015 and participated in the second follow-up workshop in Seattle. Links to the workshop presentations and videos are available on the blog.
- National Weather Service Alaska Region's Rick Thoman analyzed the current SST anomalies and compares them to past El Niño events. These updates, along with findings from other "Blob" experts in Alaska and relevant news stories, are posted on the AOOS sponsored blog.
- AOOS continues to provide access to all real-time Alaska ocean and coastal observations on its Ocean Data Explorer, as well as current and historical biological data. We are developing a suite of climate trend products, including seasonal cycle time series and anomaly plots, and comparisons of real-time buoy data from specific locations with historical data and means.



Dead murre in Prince William Sound, January 2016.

Photo by David Irons, USFWS

# ALASKA REGIONAL OCEAN OBSERVING ROUNDUP



2015 temperature time series from the ice detection freeze-up buoy (<http://www.aaos.org/ice-detection-buoy/>).



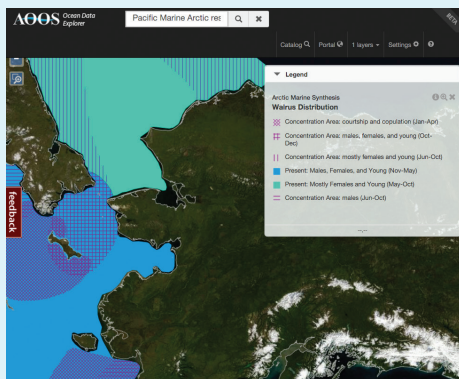
Photo by NOAA

## Ice Detection Buoy Successful at Recording Freeze-up

A new mooring designed to inexpensively and accurately predict the onset of fall ice formation performed flawlessly during the 2015 fall freeze-up cycle. Funded by the IOOS Ocean Technology Transition Program and led by UAF's Dr. Peter Winsor, the buoy provided real-time data on the vertical temperature and salinity structure of the shelf prior to and during the freeze-up through November 6, 2015. The released surface float continued to report sea surface temperature through December 6th, 2015. The sensors at depth were disconnected from the surface communications. The instruments that remain attached to the underwater mooring portion will record data internally for the rest of year and will be recovered in summer 2016. Stay tuned for more details next summer!

## Beluga Ecosystem Portal Under Development

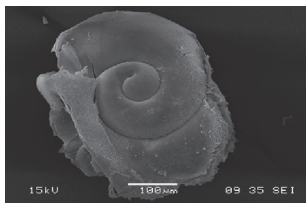
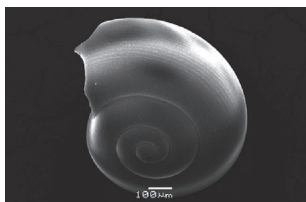
The National Fish and Wildlife Foundation has funded AOOS to develop a publicly-accessible data portal as a tool for integrating and visualizing Cook Inlet beluga sighting data with other regional biological, physical and socio-economic data streams. The Beluga Ecosystem Portal will include beluga satellite transmitter location data, beluga whale stranding observations, salmon run abundance and timing, Cook Inlet bathymetry, discharge reports for oil and gas, sewage and other pollutants, vessel traffic patterns, descriptive Orca sighting reports, salmon stream temperature data, and traditional knowledge from oral surveys. Data from the portal will also be incorporated into the AOOS Ocean Data Explorer. The portal will be launched in early April 2016.



## New Layers Added to AOOS Data Portal

AOOS continues to add models and synthesized environmental datasets to the Ocean Data Explorer, as well as the Arctic, Gulf of Alaska and Bering Sea Portals, including:

- National Climate and Environmental Prediction Center's Global Forecast System (GFS) model, used by nearly all weather sites as the basis for their long term (out 16 days) forecasts;
- Six summarized data layers from the Pacific Marine Arctic Research Synthesis for benthic macroinfaunal parameters, bottom water nutrients, integrated chlorophyll-a, sediment chlorophyll-a, sediment community oxygen uptake, and surface sediment parameters;
- Bureau of Ocean Energy Management (BOEM)'s Fish Haul dataset based on species abundance surveys for Beaufort and Chukchi Seas since 1972; and
- BOEM's Historical Distribution and Ecology of Demersal Fishes in the Chukchi Sea through 2008.



Shells dissolve in acidified ocean water.

## Ocean Acidification Workshop: Approach and Priorities

AOOS is holding a 2-day workshop January 29-30 on **Scoping the Approach and Priorities for Ocean Acidification (OA) Monitoring Activities in Alaska** in order to:

- Identify priorities for OA monitoring in Alaska and acceptable technologies with respective goals (e.g., short term vs long term trends, spatial coverage), taking into account new technical advances; and
- Develop consensus on best practices and a common vision for OA activities in Alaskan coastal waters.

Outcomes will include a Recommendations Report for OA Monitoring in Alaska for the next three years (2016-2019) that will be posted on the AOOS website.

## Fate of Shell Data Following Departure

With Shell's recent announcement of its departure from Arctic waters, AOOS has been working with Shell scientists to ensure that all Shell-funded scientific data acquired over the past decade are archived and eventually made public through the AOOS data portal. The first step has been to identify the available data and the requirements for storage and archiving. The scope of this effort exceeds the commitments made in the industry-NOAA data sharing agreement signed in 2011.

