Latest news on AOOS activities.

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AOOS Alaska Ocean Observing System

SUMMER E-NEWS

Local Help for HF Radars

The University of Alaska Fairbanks (UAF) is working with coastal communities to get three coastal High-Frequency Radar (HFR) field sites on the North Slope and two in the Bering Strait region up and running for the 2020 field season. With COVID-19 travel restrictions, UAF researchers are not able to visit the sites and are instead mailing computers and instructions to local residents to get things operational. UIC Science in Utqiagvik has been able to travel to Nuvuk (Point Barrow) and Cape Simpson to get things operational, and Michael Ahkinga Sr. in Wales is onboard to help with the system there, while the Bering Strait School District is facilitating a new power source for a site in Shishmaref. Integrating help from local communities has always been a long-term goal for the HFR systems, and in a way the COVID travel restrictions are helping to make this goal more achievable.

Links to project web sites

North Slope HFR

Bering Strait HFR

COVID-19 Delayed but Will Not Stop Us!

Lower Cook Inlet Wave Buoy to be Deployed in September 2020

Great news for Cook Inlet and Kachemak Bay mariners! The Lower Cook Inlet Wave buoy is coming back online! Offline since May due to dead batteries, the original buoy was successfully recovered by C&C Salvage on July 31, 2020, and a new upgraded buoy deployed on August 14, 2020. Unfortunately, the replacement buoy broke loose on August 24, and had to be rescued. The buoy crew is working on recovering the rest of the mooring and redeploying the buoy soon. Thanks for all those who called in asking about the buoy and offering support to help get this asset back up and running.

Once redeployed in mid-September, data will report in real time to the AOOS Real Time Sensors data portal, the Coastal Data Information Program (CDIP) webpage, and the National Data Buoy Center (NDBC). The new buoy is an upgrade from the previous one and will also report out real time surface temperature and current data

Alaska OA Network Update

Despite a modified field season due to COVID-19, ocean acidification research in Alaska is continuing to move forward. Modeling efforts and species response studies are among some of the highlights. UAF oceanographer Claudine Hauri recently released a new Gulf of Alaska Interactive Model Tool supported by Axiom Data Science that allows users to create maps, time series, and statistics of over 100 oceanographic variables, including ocean acidification and climate change related parameters like temperature, salinity, pH, aragonite saturation state and carbon dioxide in the water. A webinar introducing this tool will be held October 13.

Research on bivalve behavioral response under changes in acidification and temperature are underway at the Kasitsna Bay Lab in Homer, and a study in Juneau is looking at metabolic response of shrimp in ocean acidification conditions. The Alaska OA Network will be publishing a 2020 'State of the Science' report later this year summarizing new research on ocean acidification in Alaska. And a number of Alaskans participated in a 3 day NOAA

upcoming funding opportunity.

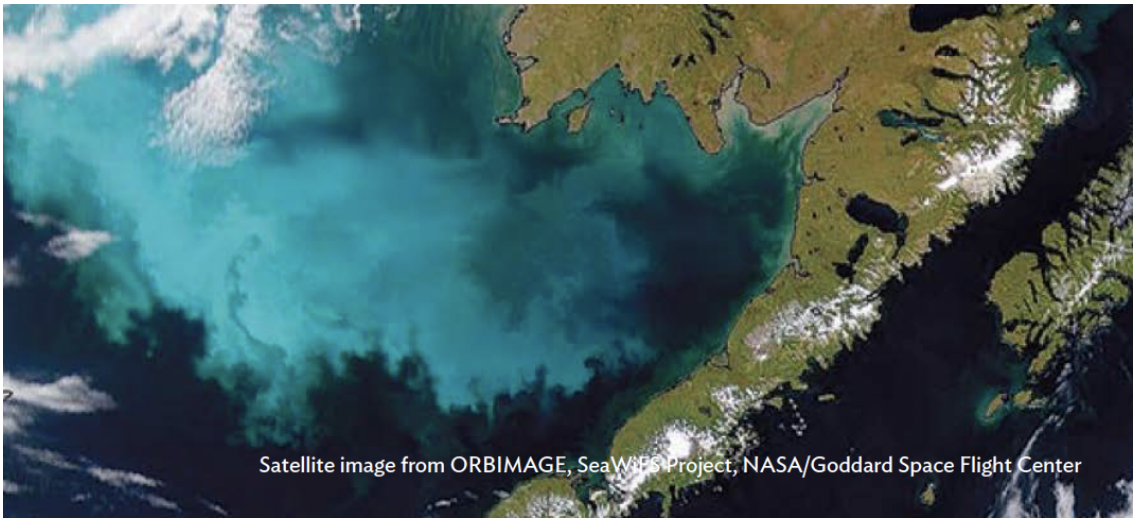
AOOS Receives New Funding for Alaska Harmful Algal Bloom Network

AOOS was successful in receiving some of the new funds Congress gave the IOOS Program this year to pilot projects demonstrating regional Harmful Algal Bloom (HAB) monitoring. Those funds will be used to hire a coordinator to lead the Alaska Harmful Algal Bloom Network (AHAB), develop a statewide action plan and expand the statewide data portal, and pilot use of DA field test kits across Alaska, as well as development of qPCR molecular testing capability to provide cell abundance data for existing HAB species in Alaska for management and event response.

AHAB was launched in 2017 to provide a statewide approach to HAB awareness, research, monitoring, and response in Alaska, and participation has grown to over 80 members. A major emphasis is helping connect regional programs who are monitoring and responding to HAB events on the local level. So far in 2020, HABs have been present above the regulatory limit for human health in a number of locations around Alaska's coast, including in Unalaska where a death occurred from PSP (paralytic shellfish poisoning) in July.

Until now, AHAB coordination roles have been shared among a number of member agencies including AOOS, Alaska Sea Grant, and the Kachemak Bay National Estuarine Research Reserve. "We are really looking forward to having a full-time person to pour their energy, insights, and collaborative talents into this network," said Darcy Dugan. "As our waters warm and the likelihood of HABs increases, we want to have a robust network to address the problem." The new position will hopefully be filled in November.

Spring 2020 Bering Region Ocean Update


Satellite image from ORBIMAGE, SeaWiFS Project, NASA/Goddard Space Flight Center

In June, AOOS and University of Alaska Fairbanks International Arctic Research Center (IARC) released a new publication called "Bering Science: Spring 2020 Bering Region Ocean Update." The AOOS and IARC team worked with over 20 agency (NOAA, USFWS, ADF&G) and university (UAF, UW) scientists to compile information on a diversity of topics from sea ice and ocean acidification to birds, fish and marine mammals. The focus is on changes observed in 2019 in the northern Bering Sea, with some information about the southern and eastern Bering and the southern Chukchi.

Some of the most striking changes shared in the report include:

- Warmer than usual ocean temperatures which, for the first time ever, surpassed 46˚F at the seafloor in the southern Bering Sea (pg. 3).
- Despite relatively normal sea ice conditions in early winter, by March the sea ice extent plummeted faster than ever recorded (pg. 4).
- Unusual die-offs of seabirds (pg. 10), ice seals (pg. 12) and gray whales (pg. 13) in recent years.
- Dramatic changes in distribution of certain fish species (pg. 14).

The report was mailed to post office boxholders from Shishmaref to Dillingham to help get the information out to as many people as possible. Additionally, staff and scientists from AOOS, NOAA, UAF and USFWS participated in a webinar hosted by the UAF Alaska Center for Climate Assessment and Policy, and radio call-in shows on KNOM (Nome) and KOTZ (Kotzebue). The spring 2020 publication, which was written for a general audience, is intended to be the first of several reports published annually. For more information, or to be added to the email distribution list, please contact beringregion@aoos.org or visit www.beringregionoceandata.org. Extra printed copies are available upon request.

The AOOS board met September 2 to consider a proposed strategic direction for the AOOS program for the next five years, which includes increased emphasis on products and services; new observational buildouts in Harmful Algal Blooms, Ocean Acidification and Ocean Sound; and increased stakeholder engagement and participation of local workforces.

The strategic planning document is being used to craft the next 5-year proposal to the IOOS program, a major source of funding for AOOS. The draft proposal includes 10 asset buildout maps and planning scenarios at the $3 million a year level, and at the $6 million a year level. The scenarios will be used by AOOS for future planning purposes.

The AOOS Board also established an Inclusion and Diversity Working Group, charged with reviewing AOOS board membership, engagement policies and procedures, as well as subaward provisions, and developing recommendations for improving them. The Working Group is to develop a preliminary report by December 15.

About AOOS

The mission of AOOS is to address regional and national needs for ocean information, gather specific data on key coastal and ocean variables, and ensure timely and sustained dissemination and availability of these data.

Questions? Email Communications Director Holly Kent, kent@aoos.org
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