

AHAB Monthly Call – June 10th, 2021

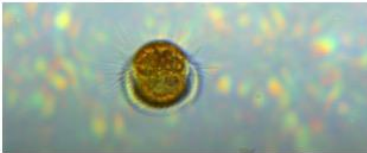
Participants: Thomas Farrugia (AOOS), Evie Fachon (WHOI), Bill Carter (USFWS), Alex Whiting (Native Village of Kotzebue), Gay Sheffield (AK Sea Grant), Emma Pate (Norton Sound Health Corporation), Karen Pletnikoff (APIA), Chandra Poe (Qawalangin Tribe), Grace Ellwanger (KANA), Andie Wall (KANA), Hallie Brown (KANA), Michael Opheim (Seldovia Village Tribe), Dom Holdero (NOAA Kasitsna Bay), Kris Holderied (NOAA Kasitsna Bay), Jeff Hetrick (APMI), Maile Branson (APMI), Annette Jarosz (APMI), Rose Masui (KBNERR), Patryce McKinney (DEC), Carol Brady (DEC), Kim Stryker (DEC), Sarah Schoen (USGS), Matt Smith (USGS), Caroline van Hemert (USGS), Naomi Bargmann (USGS), Naomi McMullen (Port Graham), Sarah Yoder (DHSS), Lori Verbrugge (CDC), Robb Kaler (USFWS), Kathy Burek Huntington (AVPS), Brock Tabor (DEC), Dean Stockwell (UAF), Courtney Hart (UAF), Susana Gonzalez (Tufts University), Kari Lanphier (Sitka Tribe/SEATOR), Xuining Du (Hatfield Marine Science Station), Anne Garland (ARIES)

Thomas' updates (more details on AHAB website: <https://aoot.org/alaska-hab-network/>)

HABs in the News

- Non-harmful Algal Bloom
 - Kachemak Bay
 - Discoloration due to *Mesodinium rubrum*

<https://www.homernews.com/news/red-bloom-in-bay-isnt-harmful/>



**Dean: Mesodinium is a ciliate that has an endosymbiotic algae in it – not a phytoplankton*

New HAB Reports

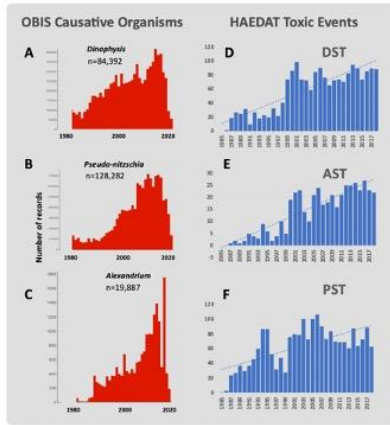
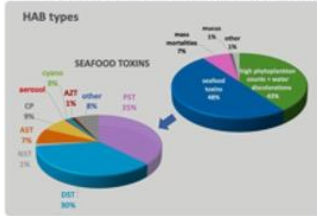
- One Health Zoonotic Disease Prioritization in Alaska
 - Workshop report
 - PSP/ASP as a top priority
 - <https://legacy.aoot.org/wp-content/uploads/2021/05/Alaska-Zoonotic-Disease-Report.pdf>



Gay: Usually the CDC does these workshops at the national level, this was the first state to have a dedicated workshop, and the first arctic region as well. It was a first, and what they were trying to eliminate any bias. It was an interesting, laborious process to go through.

New HAB Reports

- Global HAB Status Report
 - 7-year study from UNESCO
 - 9,500 HAB events analyzed



<https://legacy.aos.org/wp-content/uploads/2021/06/UNESCO-Global-HAB-Status-Report-2021.pdf>

Work Updates

- 2020 HABs Summary – coming soon
- AHAB Action Plan – finishing revisions
- Upcoming events:
 - HAB ID and sampling workshop – TOMORROW June 11th 9-11am
 - ARCUS webinar by Don Anderson – June 22nd 9-10am
<https://www.arcus.org/research-seminar-series>

ALASKA HARMFUL ALGAL BLOOM MONITORING TRAINING
Information Exchange & Skills Based Training
June 11, 2021 | Virtual via Zoom

June 11th 9:00-11:00 Phytoplankton Identification & Sampling Training
Alaska Bay Area Harmful Algal Bloom Program and Coastal Training Program
Alaska Harmful Algal Bloom Network, Alaska Ocean Observing System

Please RSVP at this [Workshop Registration Link](#) and contact Thomas for more information: thomas@aoos.org

Purpose: In a changing climate, the threat of marine toxins as a result of harmful algal blooms is increasing in coastal communities. The consequences from harmful algal blooms extend beyond impacts to human health, the economy, and the marine ecosystem. In Alaska, there is no statewide harmful algal bloom monitoring program, or regulatory authority responsible for reporting and closing subsistence or recreational harvest areas due to marine toxins. There is a need to provide coastal communities across the state with the tools needed to monitor HABs locally and build connections to regional experts.

Workshop Goal: Participants will learn phytoplankton monitoring and identification techniques to apply in their areas.

Course Objectives:

- Get familiar with phytoplankton identification under a microscope
- See examples of the major HAB-forming phytoplankton
- Learn tips on differentiating between HAB and non-HAB phytoplankton
- Learn how to collect phytoplankton for analysis
- Become familiar with phytoplankton sampling techniques and equipment

Expert Panel:

- Ross Masu, Ketchikan Bay National Estuarine Research Reserve
- Evie Fachon, Woods Hole Oceanographic Institute
- Dawn Kulis, Woods Hole Oceanographic Institute
- Dawn Stockwell, University of Alaska Fairbanks
- Alan Hubbard, Florida Fish and Wildlife Conservation Commission
- Kari Holterman, City of Unalaska

*The HAB ID workshop was held on June 11th, 2021. The recording of the workshop can be found on AHAB's YouTube Channel here: https://www.youtube.com/watch?v=slrnEWDGj_U

Round Robin Updates (going by region of work)

ARCTIC AND NORTHERN BERING SEA

Evie Fachon

No big updates. Gearing up to sample in Aug-Sept, will be in Bering and Chukchi seas, offshore.

Kathi Lefebvre (email to Thomas)

We are packing for the cruise which will be August 19 to September 20 in Chukchi and Bering seas. We are planning to get phytoplankton, zooplankton, clams, worms, fish and sediments for cyst counts for a full food web analysis of HAB toxins.

Bill Carter

June sampling pushed back because of our collaborator at Columbia is waiting on instruments. That will now happen in July. Then we will have a grad student on the project in August. We still have ice in Kotzebue Sound.

Alex Whiting

We're trying to get efforts going this summer; won't start until July. Had been looking at cyanobacteria in Kobuk lake and Selawik lake which are connected to Kotzebue Sound. Both toxins and cyanos are making their way into Kotzebue Sound. Now that we've ID'd prominent species, will focus next on trying to understand the changing nutrients, water conditions, that are allowing those things to occur. This is a relatively recent phenomenon. The first time we saw major blooms was in 2009, not long ago. In some years the entire Kobuk and Selawik lakes are covered with cyano blooms – so large you can see them in satellite images. We're still trying to understand the basics of who what when where and why. I'm working with colleague at Columbia. Planning to get some instruments out to do some sampling this summer. We're trying to get long-term research going as well.

Gay Sheffield

No news of HABs. 5th coldest June on record in Nome in 114 years, averaged 37 degrees. Cloudy foggy high precip conditions, really below our hopes 2 weeks from solstice.

Communication reminder: make sure you are communicating with existing regional communication networks. It is most effective to contact the hubs in each region and working that way to get your message out or assistance. People on coast are integrated and are making sure communication is happening. We are looking for support from the urban-based centers to continue using those networks.

Emma Pate

We recently connected to database for samples we collect. The plan is to sample weekly during certain months. Every other week during our winter months. We have a challenge with our snowy weather that was unexpected. Sometimes weather will prevent us from collecting samples. We're excited to be getting out there finally.

ALEUTIAN AND PRIBILOF ISLANDS

Karen Pletnikoff

APIA health department is joining Qawalangin Tribe on PSA on keeping yourself safe from non-commercially harvested shellfish poisoning, and going to the clinic if you've consumed non-commercial shellfish to make sure you don't have any signs or symptoms. It's important to emphasize to folks to keep their families safe.

Chandra Poe

Got voices from staff and people who have been collecting and community members and clinic staff for the PSA and will be on the air soon.

Have a big batch of samples in for testing, so will let people know of the results from those soon. We are going to start sampling a little more frequently. Sand Point will start sampling biweekly instead of monthly and shipping those immediately and running the mouse bioassay to get results as quickly as possible. It probably still won't be frequent enough for people to know whether they can consume safely. So we are still advocating for people to harvest and

hold and test before they consume. A lot of focus on outreach, also continuing monitoring through NOAA response funds.

Thomas: for the PSA, are you suggesting that people go into the clinic any time they have consumed shellfish, or just if they start feeling symptoms?

Chandra: Basically, the PSA says that if you have chosen to harvest or consume, and you suspect something, just go in. And encourage people to take it seriously and work with their health providers so people don't discount possibility of shellfish poisoning.

Karen: Especially since full breathing support is hours and hours away, so people need to go in as soon as they can if they have symptoms.

KODIAK

Grace Ellwanger

We're starting to see Alexandrium pretty regularly in weekly samples. Not bloom conditions yet, but single cells. Ocean temp jumped up this past week. Expecting to see a little bit more in the upcoming weeks. Starting freshwater sampling through a partnership with EPA, once a month through the summer and sending them in.

We also did a PSA to let people know that levels are elevated through the summer. Be mindful if collecting; get them tested.

Kim: what locations do you sample?

Grace: Four sampling locations in Kodiak along the road system where we're doing phytoplankton tows. All on beaches where we collect shellfish samples for testing (popular harvest locations).

Xiuning: Are you quantifying Alexandrium?

Grace: Yes, we count through what we see in one slide. We follow SEATOR's protocol by classifying it as absent, present or in bloom.

Andie Wall

One of the 4 locations is Sunaq Tribe's long term monitoring location that they were working on with Julie Matweyou before KANA started, so longer data set there. The rest of the locations started water sampling in March 2019.

SOUTHCENTRAL

Michael Opheim

Started doing samples for KBNERR this spring. Working on projects with APMI with Jeff and Jacqueline. Hope to continue on in the summer?

Domonic Holdero

Had the Mesodinium rubrum bloom last month, but nothing since. Will get out for monthly sampling soon. Starting predator fish sampling soon too. Also port sampling coming up.

Kris Holderied

Working with Varis and others on SST satellite tools. Talking to AOOS and Axiom on how to roll that out. We'll be looking for input on those products out.

Noted that the Mesodinium bloom in Homer disappeared quickly. Interesting to see how fast it shifted. Homer News did a long article on it; was interested in plankton dynamics.

Dean: these blooms are common to Alaska waters have happened in multiple places around Alaska (Utqiagvik, St. Paul). They pop up, turn the water red, people get worried, and then it's gone. Quick to come and go. Maybe gets grazed down or dispersed. Very dynamic situation, and lucky to have observed one.

Courtney Hart: in southeast we may have seen a similar bloom. Somebody called in but by the time we got there it was already gone. Could have been Mesodinium.

Kris: The last time we had one of these, it was long enough to turn the oysters pink. It caused a lot of concern when there didn't need to be, but it was a good opportunity for education.

Rose Masui

No major updates for KBNERR. Today is day one of our two day virtual HAB training so we will be busy with that. A big thank you to all of the participants and presenters. Otherwise we have not seen any concerning HABs in our monitoring efforts yet this season.

Maile Branson

Tribal sampling program is up and running and going well. Seeing low levels of harmful species across the sound. Also would like to introduce Annette Jarosz – new HAB lab technician and will be handling all the sample processing going forward. We had ELISA training last week and hope to have it up and running shortly.

Annette Jarosz

I recently graduated and have been working for APMI for 2 weeks. Will be doing all the algae sampling and ID'ing and all the ELISA assays. Looks forward to working with everyone.

Patryce McKinney

The lab is operating as normal, working on some projects with APMI and Qawalangin.

Carol Brady

No PST events in commercial shellfish since last meeting.

Caroline van Hemert

Getting up and rolling on captive study. Matt and Sarah heading out shortly for reconnaissance work. Haven't seen any 2021 die off samples come in yet, but we're ready for those when they come.

Sarah Schoen

We're waiting to see some big bloom event, Ketchikan and Kodiak levels starting to come up; so we're thinking about doing some food web sampling down there. We're hoping to figure out plane issue and get out to an island near Ketchikan on Monday to look around murre colony and collect eggs for the dosing study.

Right now we're just tracking where the higher levels are occurring. Saw there was a level of 200's in Kodiak. Would be interested in heading there if higher levels are persistent. And brainstorming about going to Ketchikan.

Andie: if you do come to Kodiak, we're interested in connecting with USGS folks.

Dean: Keep in mind that King Cove is historically a hotspot. Try to sample there once in a while.

Sarah: right now we're waiting for results to catch a bloom. Then they need to hope that it will persist past then so they can get there in time. If anybody has any advice on how to predict a bloom so we can get out there in time, let us know.

Naomi Bargmann

Started with USGS on May 24. Lab is at reduced capacity of only 2 people at a time so hard to get in there. Working through backlog of samples, getting trained on ELISA work. Prior with Sitka was doing RBA analysis.

Sarah Yoder

First time on call. Listening and learning to identify ways DHSS can support work.

Robb Kaler

A tufted puffin showed up in freezer at Unalaska, that was associated with 30 other puffins on the south side of Unalaska collected by a fisher. There were some shipping issues getting things off of Unalaska last summer. ADFG partners trying to get the puffin to National Wildlife Health Center in Madison. Then get tissues to USGS in Anchorage to do the HABs. Was associated with the death of the community member in Unalaska last year. Just one sample but will provide some idea of perhaps the other 30 seabirds it was with.

Kathy Burek Huntington

Just want to introduce myself, veterinary pathology, mostly with marine mammals. The info everybody collects is helpful when trying to figure out why something died. Also the person in southcentral very far away from the coastal area who is tasked with getting behavioral observations on marine mammals that may be related to HABs. We will be reworking the information and checklist that will go on AHAB website with advice from coastal people like Gay and Raphaela, and identify how to communicate info for ECOHAB project.

Brock Tabor

Things are pretty quiet in surface water world. I am readily engaging with colleagues in other states about their freshwater responses, but things are pretty quiet in the Northwest in general.

Dean: Alex Whiting has been sampling for blue-green algae in the Kotzebue system. He might be a good resource for freshwater HABs in Kotzebue Sound area.

Darcy Dugan

NOAA has a webinar on OA and HABs and the research agenda for those. Half our lunch and learn – good crash course. NOAA webinar on ocean acidification and HABs research agenda. June 17, 8am: <https://register.gotowebinar.com/register/3545885829485263117>

Xuining Du

I've been back to lab for 2 months catching up on analyses for the phytoplankton community composition and Alexandrium samples from PWS and Kachemak Bay. This is part of the work of NPRB project. Hope to finish all samples by this year and get results to everybody.

SOUTHEAST**Courtney Hart**

We have not seen any Alexandrium yet. Monitoring regularly at oyster farms, haven't had any blooms. If there's a bloom, we want to see what the other parameters look like at the same time. I heard a presentation at the HAB Symposium that did great job on how potentially cultivating algae at shellfish farms reduces likelihood of Alexandrium. Encourage people to look into that. Used species that grow readily in Alaska as well.

The paper from this talk has been published in this paper:

<https://www.zmescience.com/science/algae-farming-prevent-harmful-blooms-8462534/>

Susana Gonzalez

In Juneau on a fellowship working with Courtney doing nutrient and phytoplankton monitoring.

Kari Lanphier

Multiple communities in SE Alaska have had blue mussels exceed the regulatory limit since our May Meeting. These communities include Ketchikan, Sitka and Hoonah. We have another few days of this low tide cycle and another few days of calm sunny weather. We will issue another Marine Biotoxin Report at the end of this week with PST data from additional communities. Butter clam PST levels continue to remain above the regulatory in most SE communities. If you want to receive the Marine Biotoxin Report for PSTs email kari.lanphier@sitkatriben.gov.

NEXT AHAB MONTHLY CALL WILL BE: THURSDAY July 8TH, 2021 AT 9:30AM AK