

AHAB Monthly Call – April 8th, 2021

Participants: Thomas Farrugia (AOOS), Kathi Lefebvre (NOAA), Bill Carter (USFWS), Connie Melovidov (APIA), Karen Pletnikoff (APIA), Chandra Poe (Qawalangin), Brock Taylor (DEC), Caroline van Hemert (USGS Alaska Science Center), Dean Stockwell (UAF), Gay Sheffield (AK Sea Grant), Andie Wall (KANA), Jasmine Maurer (KBNERR), Jill Prewitt (AOOS), Karie Holterman (City of Unalaska), Michelle Morris (ADFG), Molly McCammon (AOOS), Chelsea Campbell (CRRC), Naomi Bargmann (Sitka Tribe), Steve Kibler (NOAA Beaufort Lab), Tim Lydon (PWS Stewardship Foundation), Varis Ransi (NOAA), Lori Verbruge (CDC), Jeff Hetrick (Alutiiq Pride), Julie Matweyou (AK Sea Grant), Courtney Hart (UAF), Morag Clinton (UAF), Darcy Dugan (AOOS), Robb Kaler (USFWS), Hisatomo Waga (IARC/UAF), Evie Fachon (WHOI), Kris Holderied (NOAA Kasitsna Bay), Dom Hondolero (NOAA Kasitsna Bay), Hallie Brown (KANA), Marc Suddleson (NOAA NCCOS), Emma Pate (NSHC), Naomi McMullen (Port Graham), Michael Opheim (Seldovia), Amy Holman (NOAA), Bridget Ferris (NOAA AFSC)

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

HAB News – Piney Point, FL

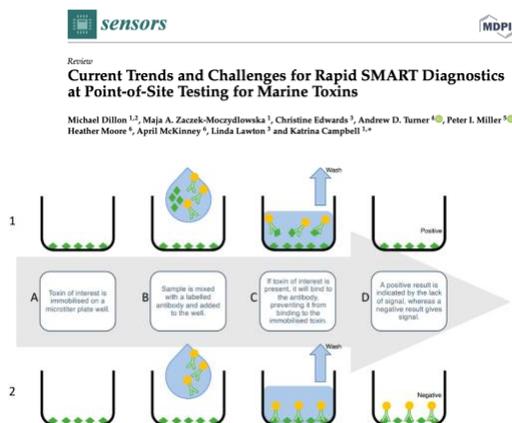
- Piney Point wastewater treatment plant reservoir being drained into Tampa Bay to avoid leak
- Fears that this will lead to more blooms of *Karenia brevis*
- US Rep Charlie Crist calls for NOAA to prioritize public HAB forecasts



Mike Lang, Sarasota Herald-Tribune

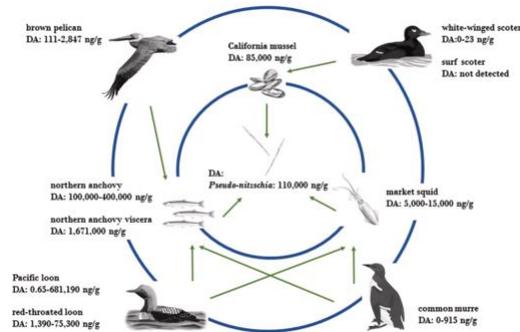
HAB Science – Point of site toxin testing

- Review of currently available methods and recent advances in marine biotoxin testing
- Some potential for STX “field tests”



HAB Science – Toxins in seabirds

- Retrospective analysis of HAB mortality events in CA, WA, RI
- Patterns of DA and STX in multiple tissues



Domoic acid and saxitoxin in seabirds in the United States between 2007 and 2018

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Upcoming Events

- PacRim Shellfish Sanitation Conference – April 6, 8, 20, 22
 - HAB-related sessions on April 20 (9-12 AK time)
- Western Alaska Interdisciplinary Science Conference and Forum
 - May 13-14, 2021 - <https://seagrant.uaf.edu/events/waisc/2021/>
- US HAB Symposium – May 25-27, 2021
 - Free virtual meeting - <http://ushabs.com/>
- Pacific Coast Shellfish Growers Association – Sept 20-21, 2021
 - Abstracts due May 1 - <https://pcsga.org/shellfish-conference-2020/>
- ASLO 2021 meeting June 22-27, 2021 – HAB session
 - June 22-27, 2021 - <https://www.aslo.org/2021-virtual-meeting/>

Work Updates

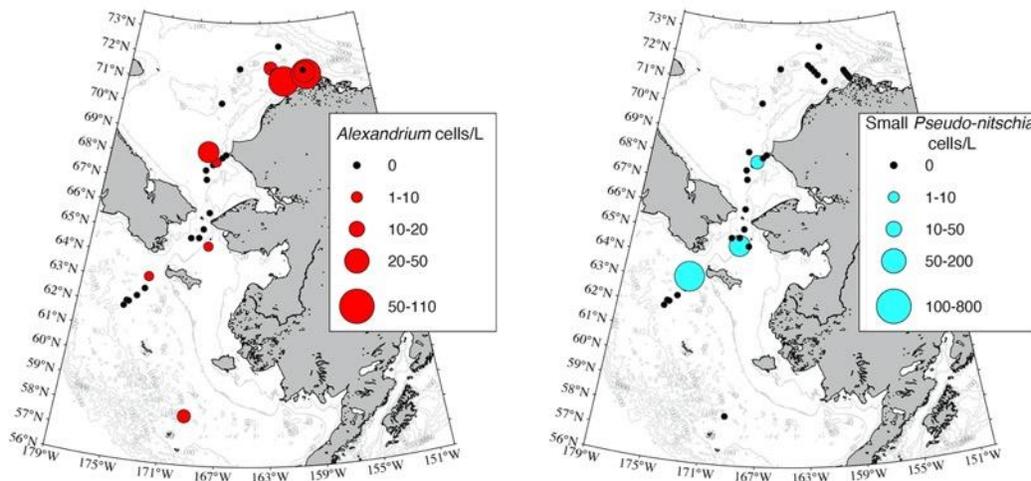
- Website update
 - Preparing to put notices about reporting HAB events
 - HAB-related job announcements
 - Still working on outreach materials page
- 2020 HABs Summary
 - Let me know if you want to contribute to it
- AHAB Action Plan first draft being internally reviewed

Round Robin Updates (going by region of work)

ARCTIC AND NORTHERN BERING SEA

Evie Fachon – WHOI

Oscar Dyson sampling from Sept 2020. *Alexandrium* cells were present by Utqiagvik and around the strait and just north of it. Low counts compared to what they've seen in recent years. *Pseudo-nitzschia* present also (smaller sized cells). Gay had emailed them in Sept 2020 about someone seeing a seal acting strangely. These samples from around that time. We can't draw conclusions but the timing is interesting.



Gay: How should we communicate this back to the region?

Kathi: We need to think about what these cell densities actually mean. They look extremely low. Kathi/Don/Evie will follow up and think about how to put that comment into context.

Dean: Presence doesn't mean it's really bad but it's possible that organisms like fish are concentrating toxins and then being eaten by seals.

Kathi: During her PhD, she quantified in Monterey Bay the bloom density needed to result in toxicity of species. Counts from 2020 much lower than that density.

Don: Low cell counts are one month later in time than 2018 and 2019 when the cruises were in August. So it's possible they had declined by September – we don't have all the ideal info.

Kris: We need to understand relationships up here before we can use Kathi's analogy for west coast.

Kathi: Agreed, that's what we'll be able to do with new findings from the ECOHAB grant.

Evie: We will not have *Pseudo-nitzschia* toxin data for these 2020 samples, as they were preserved in a way that is unfortunately not amenable to Kate Hubbard's toxin analysis. We will have this data from the 2019 sampling, as well as from the Sikuliaq cruise that took place later in fall of 2020.

Don Anderson – WHOI

We are close to submitting a manuscript about 2018 and 2019 *Alexandrium* cysts and cell distributions and the toxicity that goes with it, which makes carefully worded statements about

risk to human health. We have seen very large blooms that in other parts of the world are more than enough to cause dangerous toxicity. But we don't have evidence that people have gotten sick in Alaska. We must walk a delicate line but it's important to let people know there could be a potential risk there.

Kathi Lefebvre – NOAA

Currently have 9 cruises planned in 2021 where samples are being collected for ECOHAB project: water samples for cell counts, sediment for cyst counts, zooplankton, benthic clams and worms, fish, and associated marine mammal samples through stranding and subsistence harvest. Areas include Bering, Gulf of Alaska, little bit into Chukchi. No access into Beaufort on the cruises so far.

Gay Sheffield – Alaska Sea Grant

Note: Bob Pickart (WHOI physical oceanographer) isn't on these calls. The Polar Star was up this winter deploying CTDs. Is he a member of the group and does he need to be? We'd like to know results.

Don: nothing on that cruise had to do with HABs. Just physical oceanography.

Dean: USCG was loading up expendable devices and sending them back to Bob. They weren't taking any water samples.

Gay: Thanks. Our group is having water sampling meeting tomorrow. Chris Whitehead and Norton Sound Regional Health Cooperation and Diomedea have done some work at Diomedea, and we'll have some more of an idea of what happened out there tomorrow.

They are under windchill advisory today (-50 degrees with windchill). Air temp -19.

Uncharacteristically cold April so far. Will be interesting to see what ice does. Lots of ice right now, good news if you want ice!

Bill Carter – USFWS Selawik Refuge

West wind piling up the ice. Shore fast ice is over 4 ft thick. Haven't done any HABs work yet, waiting for open water season.

Kathy Burek Huntington (through email) – Alaska Veterinary Pathology Services

Kathy is listening in on the One Health conference. It's very interesting, DA and SXT were listed as the highest "zoonotic" disease agent listed in the CDC list of priority pathogens for Alaska. Even though HABs toxicity is not a traditional zoonotic disease, they act like them. I thought the group would be interested in that.

Amy Holman: many of us were involved in the workshop that set those.

Gay: CDC have a rigorous process for scoring diseases. Whole process is designed so that people who may have focus for their own research didn't bias the discussion, didn't want any preloading. No one expected HABs to be on the top in the room during 2-day workshop!

Emma Pate – Norton Sound Health Corporation

Just had their first field outing. Collected samples on the ice edge (20 ft down and 32 ft down). Very time-consuming process when not used to the microscope. Good weather, ice was solid.

Took 2 hours to collect and return. Will continue to develop Nome area trial run to develop plan and then focus on expanding throughout the region.

They think they saw Pseudo-nitzschia but she's still learning about how to identify. Time consuming to read the manual and go back and forth. Also took time to prep on the ice. They are also new to inReach Explorers. Used GPS device before, but inReach explorer now tracks and maps their trips.

Dean: Can your microscope take digital images?

Emma: Yes. Planning to get iPad so they can connect to microscope and take photos.

Dean: If you can do that, you could send the image to Kate Hubbard or Don's lab and ask questions.

ALEUTIAN AND PRIBILOF ISLANDS

Connie Melovidov – APIA

Sand Point is collecting cockles, blue mussels and butter clams. Hoping to send out those samples next week.

Chandra Poe – Qawalangin Tribe

Work that Connie talked about is part of NOAA event response work. Hope to see those arrive soon so we can get them sent along. 15 samples from Unalaska went to the lab today. Also samples came in from King Cove from Feb and March. 15 samples back from January. Tides are cooperating and daylight makes it less difficult to get the samples. Once the results are in, they will share. Doing outreach in the next week; interview in KUCB (Unalaska radio). Then presentation to clinic and life med staff the following week.

Pushed back some planned training from KBNERR. Rosie working with Chandra and Lauren on virtual session on conducting phytoplankton tows.

Thomas: we can include on the AHAB website numbers to call locally if there are specific response numbers other than 911.

Chandra: want to talk about that with the City of Unalaska, and push that out to the community

Jasmine Maurer: a few years ago they created some flyers for Nanwalek, Port Graham and Homer that had community specific info and numbers. She can share that with Chandra.

Chandra: maybe also some coast guard numbers or life med. Needs to look into it more. Would appreciate looking at Jasmine's flyers.

Karie Holtermann – City of Unalaska

Doing research on how to set up receptor binding assay on the island. Researching qPCR method. Did some net tows and Pseudo-nitzschia and Alexandrium present, not in abundance, but always in the background throughout the year here.

Jill Prewitt – AOOS

The Bering Science Outreach Report will be coming out in next few days! Several people on the call provided info that went into report. The report can be found [here](#). Please share widely. Also always looking for more content: prewitt@aoos.org

KODIAK

Andie Wall – KANA

Now 4 locations on the Kodiak road system and 3 continuous shellfish sampling locations off the road system. Exciting because a lot of the consumption is off the road system. Snow right now after week of sunshine, but it is spring and as the temperatures increase, picking up the outreach. Most samples start to go above regulatory limit around May the past two years. One of the monitoring locations, second time seeing “mass mortality”. Someone has collected shellfish and left them there, or held them and they died and they disposed of them. The last one from this week was around 100 shellfish. They posted it on a local Facebook page to figure out what was going on. Got a variety of responses. Maybe the communities off the road system got clammed out; didn’t eat them all and threw them away. Or were holding onto the shellfish for the results to come out, and then they died before the results came out. Dealing with interesting issue; are people making decisions based on the results? KANA doesn’t want to be the cause of population decline. This is leading to a lot of outreach in Kodiak area.

Julie Matweyou – Alaska Sea Grant

[Kodiak Area Marine Science Symposium](#) April 19-23. HABs session scheduled for afternoon of April 20th. Andie, Julie, Steve, Pat Tester will be presenting.

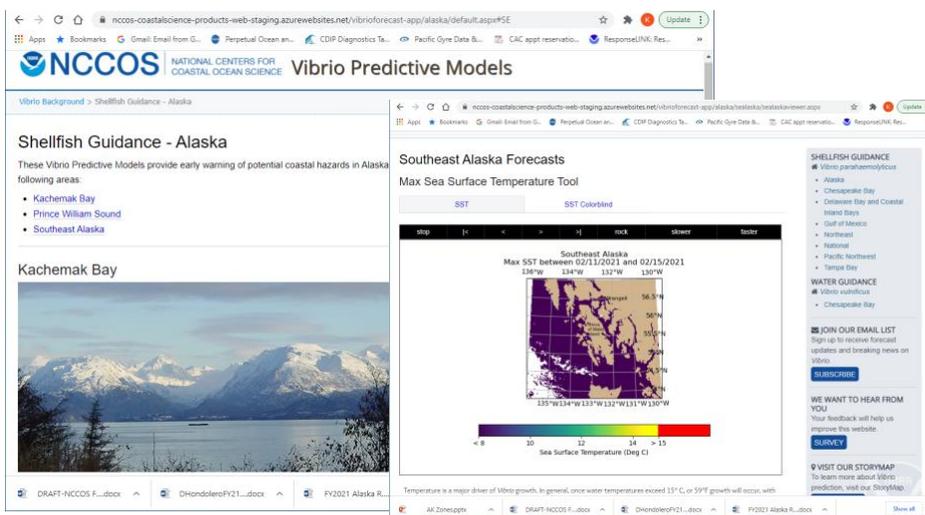
SOUTHCENTRAL

Jasmine Maurer – KBNERR

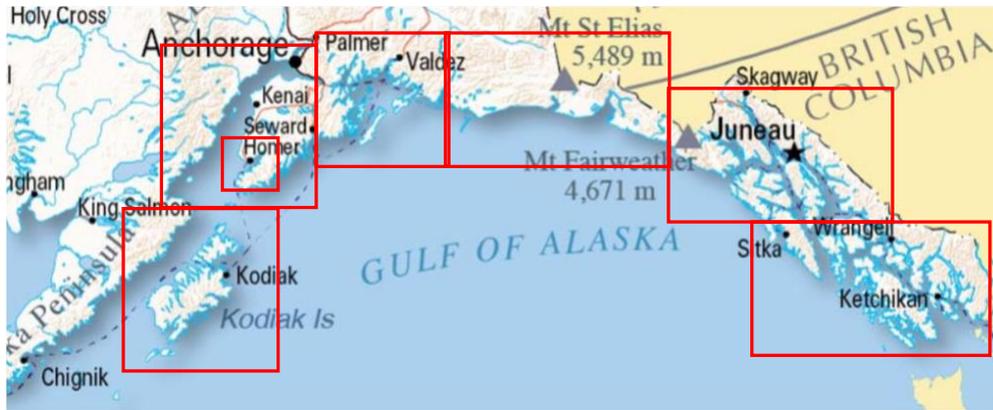
By end of month will start bi-weekly updates to community members. Rosie will be doing NOAA Alaska Live! Webinar on HABs on May 11th at noon.

Kris Holderied – NOAA KBay Lab

Heard update from Varis Ransi about satellite SST products. Just had good meeting about parallel effort for Vibrio predictive model. Satellite SST products around thresholds of temperature. What are the areas where people are interested in having a zoomed in version of the product? For vibrio the threshold is 15 degrees C. Model goes back previous 5 days. Example of one of the zoomed areas:



Had really good feedback from Kim and Alicia about level of zoom and look/feel. Similar to what will be available for the HABs side as well. If anyone has interest in having an area that would meet their needs, let Kris know. Here are the identified areas to be covered:



Varis Ransi – NOAA

Adding to what Kris was saying: we're starting to use VIIRS satellite for SST. Many options for satellites. Have people in the group used other sensors and have success or were there issues? Otherwise, they'll move forward with VIIRS.

Kris: advantage of VIIRS is 750m resolution; shows detail in coastal areas that have been difficult before. There are details that are showing up that weren't there with other satellites, and that's exciting to look at different bays, etc..

Domonic Hondelero – NOAA Kasitsna Bay Lab

Conducted monthly sampling for March. Still not seeing a lot of phyto or zooplankton in the water. Will get out for quarterly sampling in April; larger effort that includes the opening of Cook Inlet and other outer transects, as well as hopefully Anchor Point. Might have more to report after gaining more light over the month, but still not seeing a lot out here.

Chelsea Campbell – CRRC

CRRC is hosting HAB/OA training in May for Tribal members – both in person and virtual. Would like to start including phytoplankton tows and shellfish sampling in IGAP work plans. Working with environmental coordinators in each community to get it into work plans for 2021/2022, and get those samples tested at Alutiiq Pride.

Naomi McMullen – Port Graham

Been doing OA sampling with hatchery but nothing else to add.

SOUTHEAST

Michelle Morris – aquatic farm permit application period ends April 30th, so we will see at the end of the month how many new aquatic farms are applying for the 2021 opening.

Courtney Hart – UAF (Juneau)

Monitoring HABs at local oyster farm in Juneau. Haven't seen a lot of phytoplankton in the water yet. Going out weekly when weather allows. Got a little add-on from Natalia Monacci at OARC and will collect water for OA analysis in conjunction with getting phytoplankton and p-tox in water and oyster toxicity. Will try to track for one full season once it warms up.

Naomi Bargmann – Sitka Tribe of Alaska

It's a blizzard out here! PST values still very low. Pretty much all shellfish are low except for butter clams which like to hold on to PST. Got a couple of samples from Admiralty Island which they usually don't get, and those butter clams were 4-5 times the limit. So again butter clams are a wild card.

Herring season is in full swing; actually had a fishery this year. Fished half the 33 ton quota that was set. Lots of excitement here, grocery store on the water had a sign that said "free whale watching" because you could watch whales from the parking lot.

Naomi has accepted position with USGS in Anchorage to work with seabirds; this is her last call as part of Sitka Tribe. Her job is currently being announced with Sitka Tribe; go to SEATOR website, the application period ends April 30th. Sitka is a great place to work, very beautiful and right on the water.

(Naomi got lots of congratulations from the group!)

STATEWIDE

Caroline Van Hemert – USGS

Still planning for captive murre work and prepping for field season but no major updates from USGS ASC. [Recent publication](#) on seabird die off and HABs in Bering/Chukchi seas (Journal of Wildlife Diseases)

Marc Suddleson – NOAA

NOAA NCCOS and US HAB National Office at WHOI announced today Proceedings from a 2020 U.S. Socio-economic Effects of Harmful Algal Blooms Workshop. Link to the report:

[WHOI press release](#) [NCCOS news item](#)

Morag Clinton – UAF

Just moved to Alaska in January from the UK. Hopes to continue work on impacts on fish health from HABs. Did sampling in UK from Pseudo-nitzschia and other species and what impacts they can have on fish aquaculture. Looks forward to being part of the network.

Molly McCammon – AOOS

AOOS and WWF held second transboundary Russia/US science dialogue. Focused on seabirds. Talks and discussion were recorded and will be posted on AOOS website soon. They asked if there were significant bird die-offs on Russian side and the answer was no. Interesting info to be shared. The next dialogue will be on fish, and there will be one on marine mammals – so more transboundary communications happening soon!

NEXT AHAB MONTHLY CALL WILL BE: THURSDAY MAY 13TH, 2021 AT 9:30AM AK