

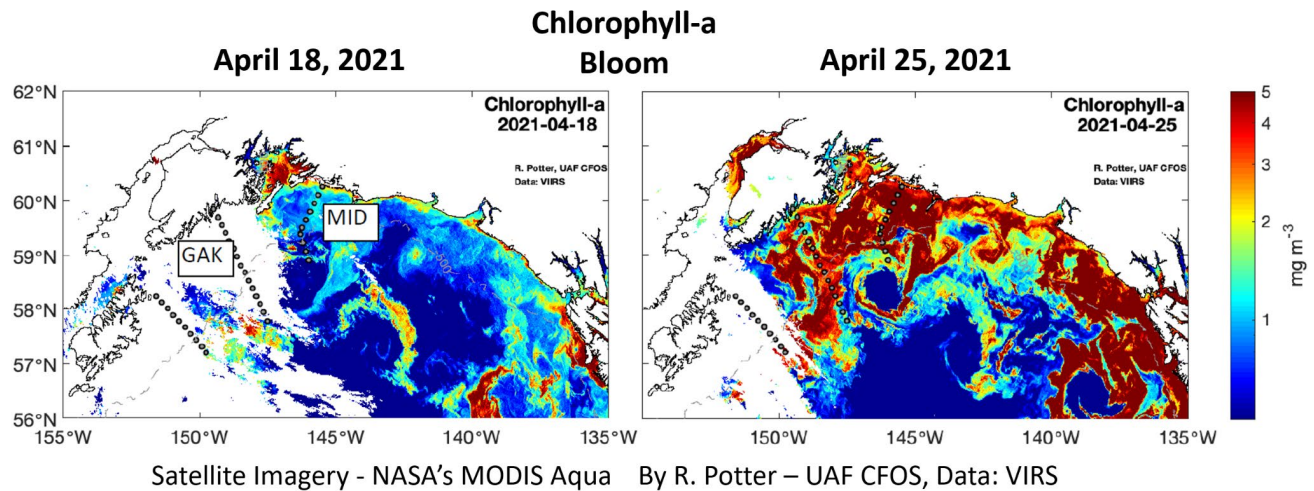
Greetings!

The Gulf Watch Alaska (GWA) program and Principal Investigators (PIs) have been busy this summer preparing proposals and collecting data. Despite a persistent pandemic, many PIs have been happily out doing fieldwork - tending to their instruments, bagging and tagging samples, and appreciating the salty air. Here is a brief summary of GWA's second quarter activities and accomplishments:

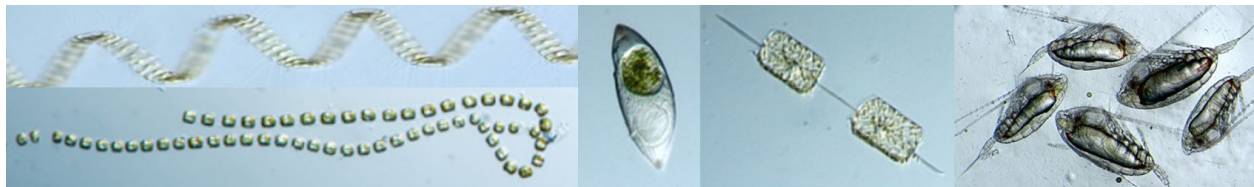
Science Update:

Headlines from UAF oceanographer Russ Hopcroft (GWA Seward Line & GAK-1 projects):

- “There was a massive, early spring bloom in the northern Gulf of Alaska, April-May 2021.” Some of the highest chlorophyll concentrations recorded during the 24-year occupation of the Seward Line were seen in late April - early May 2021, in association with a massive diatom bloom (See satellite images below). High chlorophyll was mostly confined to the upper 20 m of the water column with the bloom likely a response to intermittent sunny days and light winds.



- “The early, intense bloom of large, lipid-rich phytoplankton bodes well for survival and growth of krill and larval fish in 2021.” A diverse mixture of chain diatoms and colonial *Phaeocystis* comprised the bloom phytoplankton community. Late-stage juveniles of the spring dominant *Neocalanus* copepod community had large amounts of lipid stores.



Photos by Russ Hopcroft (UAF) and Suzanne Strom (WWU)

- We found relatively cool ocean temperatures and, in places, fresher conditions than usual.
- Seabird abundances were some of the lowest ever observed during the >20-year time series, and few marine mammals were sighted.

Program Management Team (PMT):

- Much of this quarter has been focused on our GWA-LTRM proposal package for the EVOSTC's FY22-31 Invitation. In June we received comments from the Trustee Council's Science Panel and external reviewers. The PMT and PIs have subsequently responded and revised their proposals. The revised GWA-LTRM proposal package was successfully submitted by August 13th: 1 program proposal, 23 project proposals, and a workbook collating all associated budgets.
- The PMT hosted the joint GWA and HRM summer quarter PI video teleconference in mid July. PIs were able to touch base on observations from the field and catch up on program logistics.
- The PMT and PIs under the NOAA grant successfully submitted a semi-annual report to the agency.

Relevant Media:

- Seabird die-off in Gulf of Alaska part of bigger problem. Alaska News Source by Taylor Clark, August 5, 2021. Video and article. <https://www.alaskasnewssource.com/2021/08/05/seabird-die-off-gulf-alaska-part-bigger-problem>.
- Alaskan Scientists Continue Humpback Research as Whale Watching Industry Aims to Rebound. NOAA webstory. July 23, 2021. <https://www.fisheries.noaa.gov/feature-story/alaskan-scientists-continue-humpback-research-whale-watching-industry-aims-rebound>.
- Low-Fat Diet Possible Culprit in Poor Survival of Young Pollock Born 2013. NOAA webstory. July 20, 2021. <https://www.fisheries.noaa.gov/feature-story/low-fat-diet-possible-culprit-poor-survival-young-pollock-born-2013>.

Important Upcoming Dates:

- **August 13, 2021** - Due date for final proposals to EVOSTC
- **Sept. 28-29, 2021** - EVOSTC PAC meeting
- **Oct. 13, 2021** EVOSTC Trustee public meeting
- **Oct 25-29, 2021** - GWA & HRM joint annual PI meeting
- **Oct. 18-22, 25-29 2021** - Pacific Marine Science Organization (PICES) Annual Meeting, virtual

see next page for GWA Quarterly Photo

Gulf Watch Alaska Quarterly Photo:



*A dramatic example of a halocline - Katmai coast fresh water river plume meets the salty ocean.
Photo by Heather Coletti, July 2021.*