

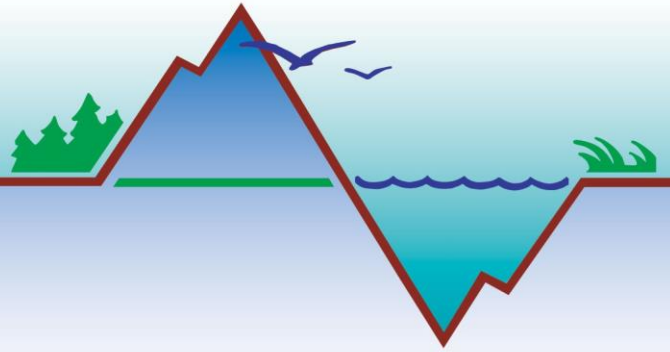
Kachemak Bay Research Reserve Phytoplankton Update

July 24th to July 30th, 2020

Harmful Algal Bloom Program

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Hello Everyone,

As July ends and we welcome August we are in the time of year that we have typically seen more toxin producing phytoplankton in Kachemak Bay. There are three species of concern in Kachemak Bay that can produce toxins and lead to shellfish poisoning when shellfish accumulate these species, they are *Alexandrium*, *Dinophysis* and *Pseudo-nitzschia*.

In Alaska the presence of these species has not yet been associated with any change in the color of the water. A few factors that can influence the color of our coastal waters are run-off, spruce pollen or other pollens, and tidal changes. To date harmful algal blooms in Kachemak Bay have not been associated with changes in water color.

Toxins produced by harmful algal blooms are accumulated and flushed from shellfish tissue at different rates depending on the shellfish species. Mussels for example tend to accumulate toxins relatively rapidly and flush them over several days. This contrasts with the **butter clam** that can accumulate toxins and **remain toxic for up to 2 years**. Washing, cooking and freezing do not break down the toxins in shellfish tissue.

This week the phytoplankton in Kachemak Bay overall were less abundant than the previous weeks. However, a diversity of species was present in all the samples this week. We hope to have results to share next week from our wild-shellfish toxin testing program.

For more information on toxin producing phytoplankton, harmful algal blooms, or our monitoring program please reach out via email with your questions or concerns. Or visit our website by [clicking here](#) to access detailed handouts covering the species of concern in Kachemak Bay and other relevant topics. To access our past Weekly Phytoplankton Updates [click here](#).

Please reach out with any questions. Rosie will be out of the office until August 6th, so please email Jasmine or Steve for a timelier response.

Thanks to all our monitors and partners for the phytoplankton samples!

Rosie Masui, Jasmine Maurer & Steve Baird: sjbaird@alaska.edu

Kachemak Bay Research Reserve Phytoplankton Update
Qualitative Analysis Phytoplankton Data

INNER BAY

DATE	Bay	Water Temp	Salinity	Dominant species	Dinophysis	Pseudo-nitzschia	Alexandrium
7/23/2020	Bear Cove	17.5	25	Mixed Diatoms	Present	Present	Present
7/25/2020	Peterson	12.2	30	<i>Chaetoceros</i> sp.	Present	None	Present
7/29/2020	Halibut Cove	13	27	Sparse sample	None	None	None
7/30/2020	Homer Harbor	13.5	26.3	Sparse sample	Present	None	None

*Samples received after last weekly update

OUTER BAY

DATE	Bay	Water Temp	Salinity	Dominant species	Dinophysis	Pseudo-nitzschia	Alexandrium
7/3/2020*	Seldovia Harbor	12	31	Sparse Sample	None	Present	Present
7/23/2020	Jakolof	13	38	<i>Chaetoceros</i> sp.	Present	None	None
7/24/2020	Seldovia Harbor	11	31	Sparse Sample	None	None	None
7/29/20	Jakolof	11	47	<i>Chaetoceros</i> sp.	None	None	None

*Samples received after last weekly update



Kachemak Bay National Estuarine Research Reserve
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