

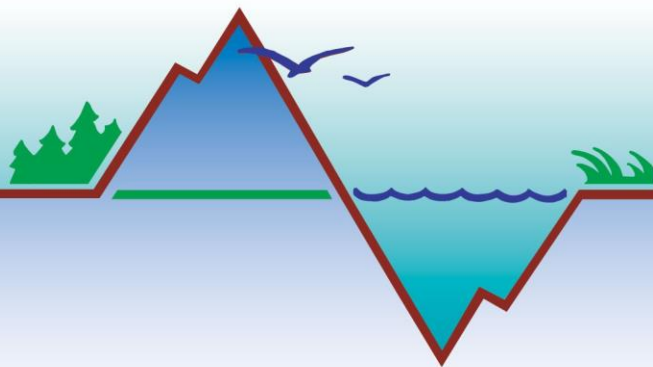
## Kachemak Bay Research Reserve Phytoplankton Update

May 14<sup>th</sup> – May 27<sup>th</sup>, 2021

Harmful Algal Bloom Program

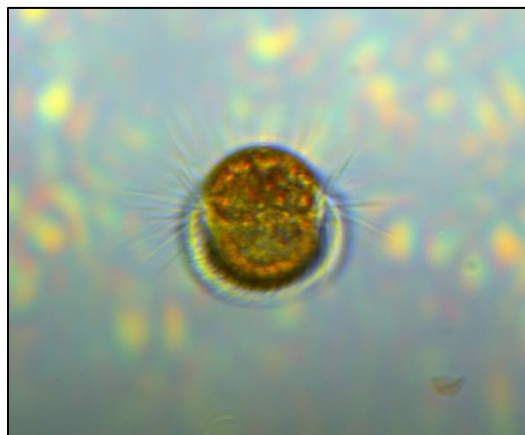
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Hello Everyone,

Many of you may have noticed a striking red color in some areas of Kachemak Bay during the last week. KBNERR staff was able to collect phytoplankton samples over the weekend during this event and find out it was this little non-toxic marine ciliate, *Mesodinium rubrum*!



*M. rubrum* from Kachemak Bay 5/22/21 photo by R. Masui

This ciliate, and its food, have red pigments, so when *Mesodinium rubrum* is abundant it can give the water a red color and, again, *M. rubrum* does **not** produce toxins. A big thanks to our monitors for notifying us about where they were seeing this bloom and to our partners at NOAA for confirming the identification of *M. rubrum*.

Phytoplankton samples from inner and outer Kachemak Bay during the week of May 17<sup>th</sup> were sparse early in the week, however by the 20<sup>th</sup> phytoplankton throughout the bay became more abundant in the samples. In Sadie Cove *Chaetoceros debilis* was blooming on May 26<sup>th</sup>.

*Chaetoceros* species are a distinctive group of phytoplankton due to their long spines that can get caught in fish gills potentially causing problems for fishes if they are unable to swim away from a bloom of *Chaetoceros*.

Also this week we received a batch of samples from partners in Prince William Sound from their sampling efforts in April. Interestingly, one of the sample locations had abundant phytoplankton in April and the other location was sparse during the same period.

As always please email us with any questions. Email is the best method to reach KBNERR staff while we continue to work remotely.

Thank you to all our monitors for collecting phytoplankton samples!

Jasmine and Rosie

Kachemak Bay Research Reserve Phytoplankton Update  
Qualitative Analysis Phytoplankton Data

**INNER BAY**

DATE	Bay	Water Temp	Salinity	Dominant species	Dinophysis	Pseudo-nitzschia	Alexandrium
5/12/2021*	Peterson Bay	5	30	Sparse sample	Present	None	None
5/16/2021	China Poot	6	34	Sparse sample	None	None	None
5/18/2021	Homer Harbor	7.9	29.7	Sparse sample	None	None	None
5/22/2021	McNeil	7.7	-	<i>Mesodinium rubrum</i> Bloom	Present	Present	None
5/23/2021	Peterson Bay	5.5	31	Sparse Sample	None	None	None
5/25/2021	Peterson Bay	8	36	<i>Chaetoceros</i> sp.	Present	Present	None
5/26/2021	Homer Harbor	8.4	29	Sparse sample	None	None	None

\*Samples received after last weekly update

**OUTER BAY**

DATE	Bay	Water Temp	Salinity	Dominant species	Dinophysis	Pseudo-nitzschia	Alexandrium
5/13/2021*	Tutka Lagoon	7.2	29	Sparse sample	None	None	None
5/13/2021*	Seldovia	6.3	32	Sparse sample	None	Present	None
5/16/2021	Tutka Lagoon	6.9	29	Sparse Sample	None	None	None
5/18/2021	Tutka Lagoon	8.2	28.2	Sparse Sample	None	None	Present
5/20/2021	Seldovia	6.9	32	Mixed Diatoms	None	Present	Present
5/26/2021	Sadie Cove	11	-	<i>Chaetoceros debilis</i> Bloom	Present	None	None

\*Samples received after last weekly update

## Prince William Sound

DATE	Bay	Water Temp	Salinity	Dominant species	Dinophysis	Pseudo-nitzschia	Alexandrium
4/2/2021*	Sawmill Bay	4.4	25	<i>Chaetoceros</i> sp. Bloom	None	None	None
4/3/2021*	Cannery Creek	5.9	32	Sparse sample	None	Present	None
4/9/2021*	Cannery Creek	6.9	29	Sparse Sample	None	None	None
4/9/2021*	Sawmill Bay	4.5	25	<i>Thalassiosira</i> & <i>C. debilis</i>	None	Present	Present
4/16/2021*	Sawmill Bay	4.7	21	<i>Chaetoceros</i> sp.	None	Present	Present
4/18/2021*	Cannery Creek	6	30	Sparse sample	None	Present	None

\*Samples received after last weekly update



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