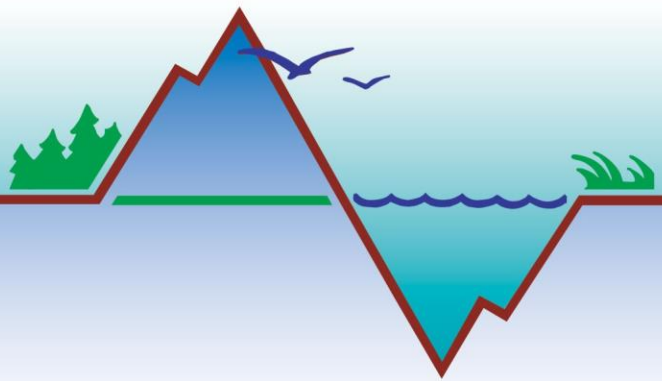


Kachemak Bay Research Reserve Phytoplankton Update

June 7th – June 13th 2019

Harmful Algal Bloom Program

Rosie Robinson 907-235-1598 rmrobinson3@alaska.edu



Hi all,

<u>Date</u>	<u>Shellfish Type</u>	<u>Location</u>	<u>Toxin Tested For</u>	<u>Toxin Testing Result</u>
6/5/2019	Razor Clams	Ninilchick	Saxitoxins – PSP	Below regulatory limit
6/6/2019	Blue Mussels	Homer Harbor	Saxitoxins – PSP	Below regulatory limit

We have the results in from our wild shellfish toxin testing program! The razor clams and blue mussels both came in below the regulatory limit for saxitoxins which can lead to paralytic shellfish poisoning. We'll be doing our next round of sampling in two weeks. KBNERR is not a regulatory agency and the consumption of wild shellfish in Alaska is considered 'dig at your own risk'. Samples are analyzed for toxicity levels at DEC's Environmental Health Laboratory in Anchorage. Commercially harvested shellfish are regulated through the DEC and are considered safe for consumption.

Continue reading for our most recent phytoplankton analysis. Thanks to all of our monitors and partners for the phytoplankton and shellfish samples!

Rosie Masui & Jasmine Maurer

Kachemak Bay Research Reserve Phytoplankton Update

Qualitative Analysis Phytoplankton Data

INNER BAY

DATE	Bay	Water Temp	Salinity	Dominant species	Dinophysis	Pseudo-nitzschia	Alexandrium
6/11/2019	Homer Harbor	11.6	29.7	Sparse sample	None	None	None
6/11/2019	Gull Island	11.9	28.3	<i>Skeletonema</i> sp.	None	None	None
6/11/2019	Halibut Cove	12	30	Sparse Sample	None	None	None
6/11/2019	Mud Bay	11.8	26.4	<i>Cerataulina</i> sp.	None	Present	None
6/12/2019	Mud Bay	11.7	28.8	Sparse Sample	None	Present	None

*Samples received after last weekly update

OUTER BAY

DATE	Bay	Water Temp	Salinity	Dominant species	Dinophysis	Pseudo-nitzschia	Alexandrium
5/19/2019*	Jakolof	7	32	<i>Chaetoceros</i> spp. bloom	Present	Present	Present
5/28/2019*	Jakolof	7.0	23	<i>Chaetoceros</i> spp. bloom	None	Present	None
6/3/2019	Port Graham	9.9	32	<i>Chaetoceros</i> spp. bloom	None	Present	Present
6/3/2019	Port Graham	9.9	25	<i>Chaetoceros</i> spp. bloom	None	Present	None
6/8/2019	Tutka Bay	5.5	15	<i>Chaetoceros</i> spp. bloom	Present	Present	None
6/10/2019	Tutka Bay	10.9	27	<i>Chaetoceros</i> spp. bloom	None	Present	None
6/11/2019	Tutka Bay	13.5	23.1	<i>Chaetoceros</i> spp.	None	Present	None
6/11/2019	Sadie Cove	13.2	19.5	<i>Chaetoceros</i> spp. & <i>Skeletonema</i> sp.	None	Present	None
6/11/2019	Eldred Passage	14.9	26.2	<i>Chaetoceros</i> bloom & <i>Leptocylindrus</i> bloom	None	Present	Present
6/11/2019	Kasitsna Bay	10.2	31	<i>Chaetoceros</i> & <i>Leptocylindrus</i>	None	Present	None
6/12/2019	Port Graham	11	30	<i>Chaetoceros</i> spp. bloom	None	Abundant	None

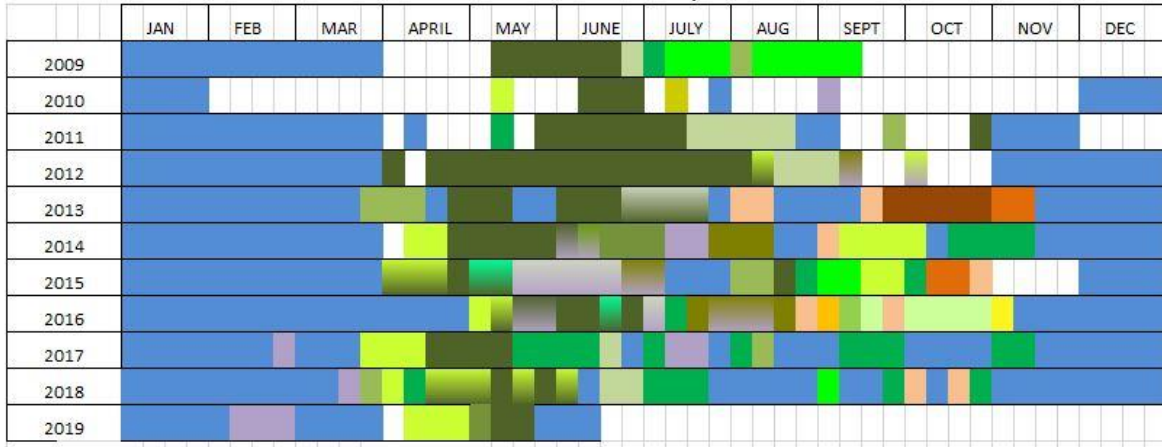
*Samples received after last weekly update

RESURRECTION BAY

DATE	Bay	Water Temp	Salinity	Dominant species	Dinophysis	Pseudo-nitzschia	Alexandrium
6/13/2019	SMIC Dock	10.2	26.2	<i>Pseudo-nitzschia</i>	Present	Present	None

*Samples received after last weekly update

Phytoplankton phenology
Inner Kachemak Bay



Outer Kachemak Bay 2014 - 2019

Sadie, Tutka, Jakolof, Eldred Pass, Kasitsna, Seldovia, Pt. Graham



Dinoflagellates

- dinoflagellate mix
- *Ceratium furca*
- *Karenia mikimotoi*
- *Alexandrium*
- *Ceratium longipes*
- Diatom/Dinoflagellate Mix
- low levels of phytoplankton
- no data

Diatoms

- *Chaetoceros*
- *Cerataulina*
- *Coscinodiscus*
- *Lauderia*
- *Leptocylindrus*
- *Pseudo-nitzschia*
- *Rhizosolenia*
- *Skeletonema*
- *Stephanopyxis*
- *Thalassionema*
- *Thalassiosira*
- Diverse diatoms
- *Chaetoceros/Thalassiosira* equally dominant
- *Chaetoceros/Lauderia* equally dominant
- *Chaetoceros/Leptocylindrus* equally dominant
- *Leptocylindrus/Pseudo-nitzschia/Rhizosolenia* equally dominant
- *Chaetoceros/Pseudo-nitzschia* equally dominant
- *Rhizosolenia/Pseudo-nitzschia* equally dominant
- *Cerataulina/Pseudo-nitzschia* equally dominant
- *Thalassiosira/Pseudo-nitzschia* equally dominant
- *Leptocylindrus/Pseudo-nitzschia* equally dominant
- *Ditylum*
- *Corethron*



Kachemak Bay National Estuarine Research Reserve
Alaska Center for Conservation Science
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