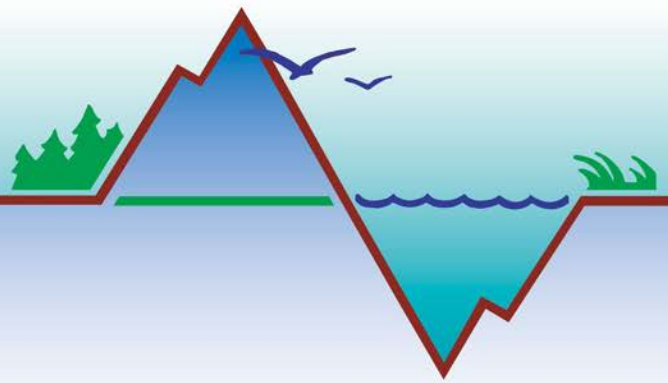


# Kachemak Bay Research Reserve Phytoplankton Update

October 25<sup>th</sup> – November 7<sup>th</sup> 2019

Harmful Algal Bloom Program

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Hello Everyone,

Last week we saw the phytoplankton in Homer Harbor increase in diversity and abundance, especially the dinoflagellates. Dinoflagellates are a diverse group of single celled organisms that include *Alexandrium* and *Dinophysis*. The Greek root dinos, “whirling”, describes their distinctive swimming pattern when observed live under the microscope.

Although we see dinoflagellates throughout the year in our phytoplankton samples, they do not frequently dominate a sample. You may notice in the phenology charts, at the end of this update, that the orange and red colors, used to indicate a dinoflagellate was dominant, are not common.



Photo by KBNERR

*Ceratium furca*, shown above, was the dominant dinoflagellate in last week’s Homer Harbor sample.

The next update, and the last for 2019, will be on November 21<sup>st</sup>. We will begin our email updates again in April of 2020. Please reach out with any questions at any time.

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

Rosie Masui & Jasmine Maurer

## Kachemak Bay Research Reserve Phytoplankton Update

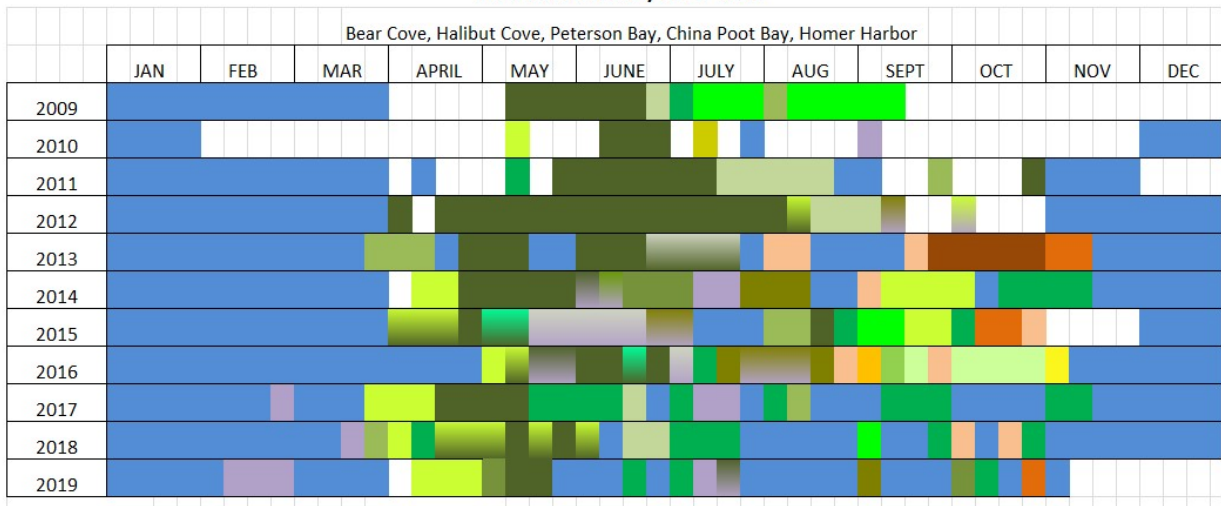
### Qualitative Analysis Phytoplankton Data

#### INNER BAY

DATE	Bay	Water Temp	Salinity	Dominant species	Dinophysis	Pseudo-nitzschia	Alexandrium
10/31/2019	Homer Harbor	9	28	<i>Ceratium furca</i>	Present	None	Present
11/06/2019	Homer Harbor	7.8	26.2	Sparse Sample	None	Present	None

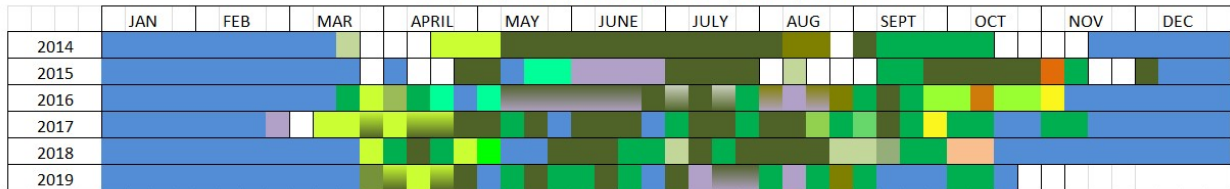
\*Samples received after last weekly update

Phytoplankton phenology  
**Inner Kachemak Bay 2009 - 2019**



**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*



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