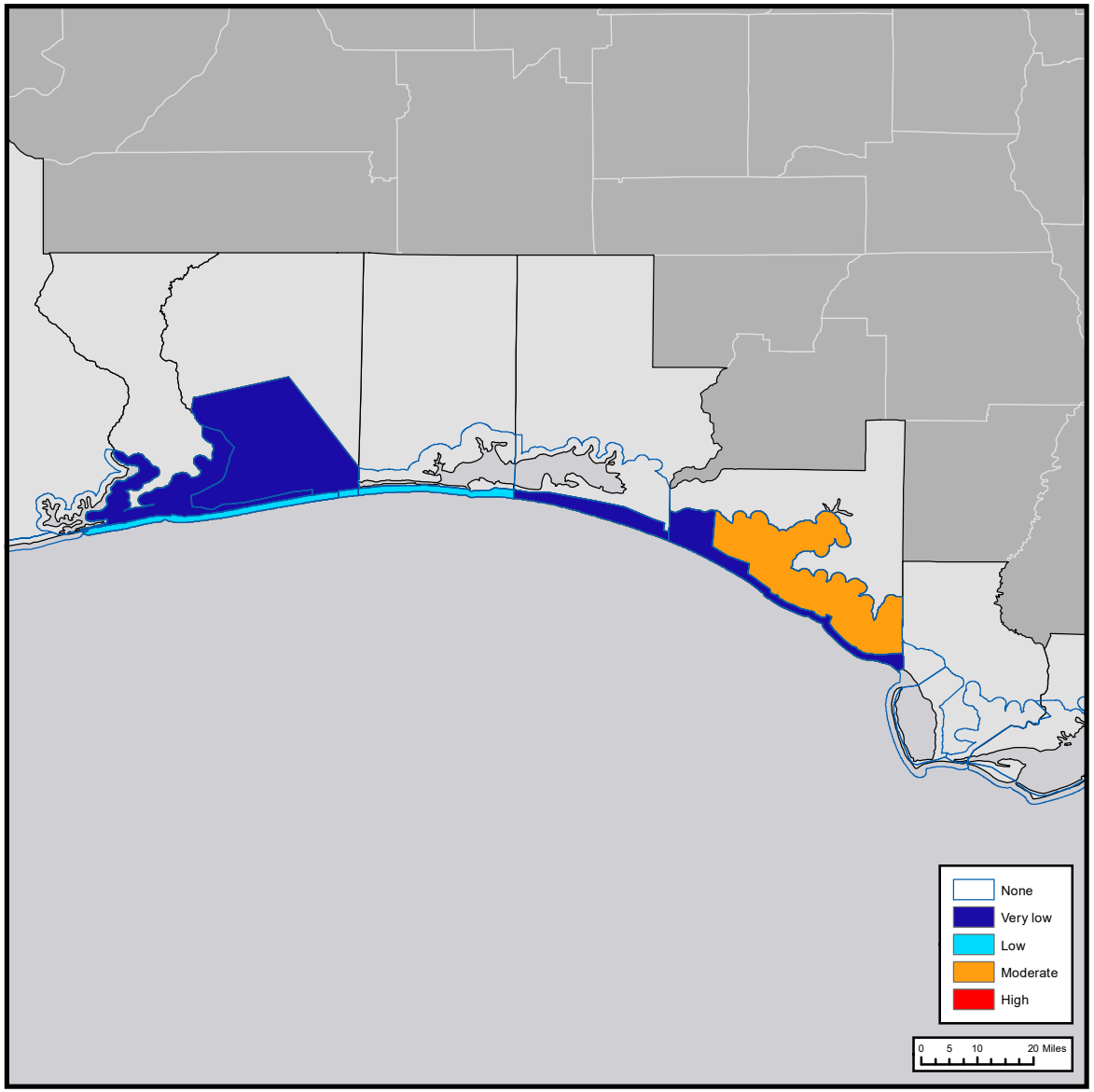
Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Northwest Florida to Louisiana

Monday, November 19, 2018
NOAA National Ocean Service
NOAA Satellite and Information Service
NOAA National Weather Service

Instructions for viewing this geospatial pdf are available at: https://go.usa.gov/xn9g2.



The image above is the top layer in a series of maps for 11-19-18 to 11-23-18 displaying the highest level of potential respiratory irritation forecasts in each region.

Conditions Report

Not present to high concentrations of *Karenia brevis* (commonly known as red tide) are present along- and offshore portions of northwest Florida. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction.

Recently Reported Impacts (Listed by County):

Respiratory irritation: Okaloosa
Dead fish: None

Definition of respiratory irritation levels.

	AFFECTED POPULATION				
RESPIRATORY IRRITATION LEVEL	NONE	CHRONIC RESPIRATORY CONDITION	SENSITIVE TO RED TIDE	GENERAL PUBLIC *(MILD SYMPTOMS)*	GENERAL PUBLIC *(INTENSE SYMPTOMS)*
None	X				
Very low		X			
Low		X	X		
Moderate		X	X	X	
High		X	X	X	X

Additional Resources

Health Information:

Florida Department of Health:
http://www.floridahealth.gov/environmental-health/aquatic-toxins/red-tide.html
Other resources: https://go.usa.gov/xQNWp

Recent, Local Observations and Data:

Mote Marine Laboratory Daily Beach Conditions:
http://visitbeaches.org
Florida Fish and Wildlife Conservation Commission:
http://myfwc.com/redtidestatus

State Name	County Region	Mon 11/19	Tue 11/20	Wed 11/21	Thu 11/22	Fri 11/23		
Louisiana								
	ST. TAMMANY Parish-Gulf Coast							
	ORLEANS Parish-Gulf Coast							
	ST. BERNARD Parish-Gulf Coast							
	PLAQUEMINES Parish-Gulf Coast							
Mississippi								
	HANCOCK County-Gulf Coast							
	HANCOCK County-Bay Regions							
	HARRISON County-Gulf Coast							
	East HARRISON County-Bay Regions							
	West HARRISON County-Bay Regions							
	JACKSON County-Gulf Coast							
Alabama								
	BALDWIN County-Gulf Coast							
	BALDWIN County-Bay Regions							
	MOBILE County-Gulf Coast							

The table lists the highest level of potential respiratory irritation forecast. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction.

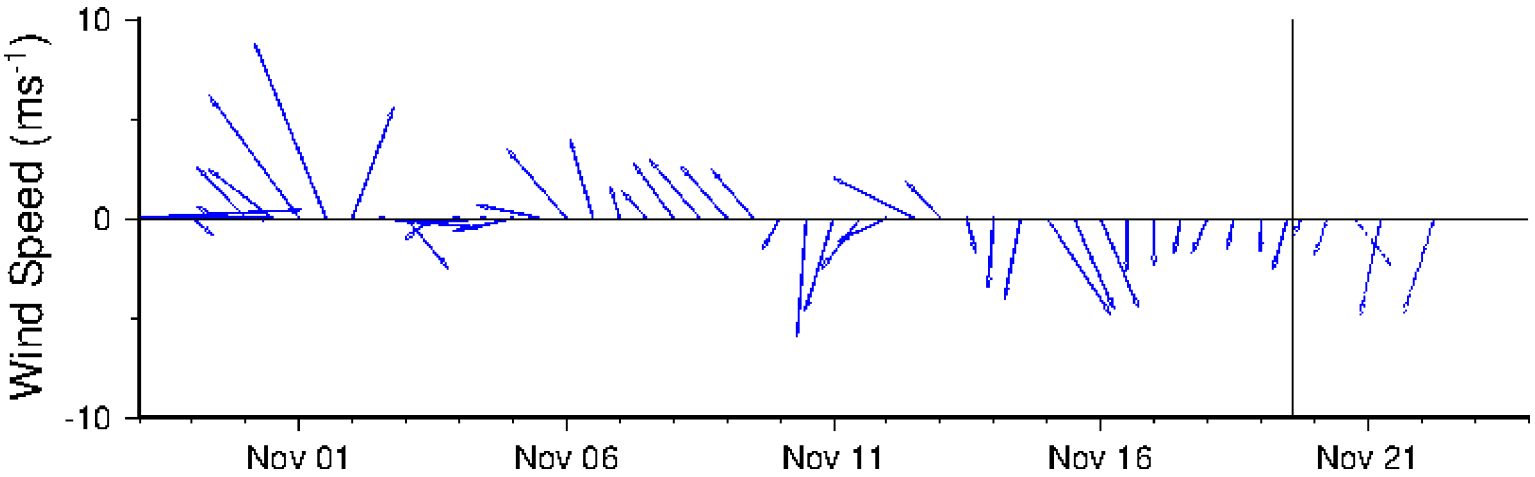
Cells are marked 'none' if *K. brevis* was detected, but no respiratory irritation is forecasted in the region. Cells are blank if no *K. brevis* has been detected in the region.

State Name	County Region	Mon 11/19	Tue 11/20	Wed 11/21	Thu 11/22	Fri 11/23		
Florida								
	ESCAMBIA County-Gulf Coast	low	very low	very low	very low	moderate		
	ESCAMBIA County-Bay Regions	very low	low	low	low	low		
	SANTA ROSA County-Gulf Coast	low	very low	very low	very low	moderate		
	SANTA ROSA County-Bay Regions	very low	low	low	low	low		
	OKALOOSA County-Gulf Coast	low	very low	very low	very low	low		
	OKALOOSA County-Bay Regions							
	WALTON County-Gulf Coast	very low	very low	very low	very low	low		
	WALTON County-Bay Regions							
	BAY County-Gulf Coast	very low	very low	very low	very low	moderate		
	BAY County-Bay Regions	moderate	moderate	moderate	moderate	moderate		
	GULF County-Gulf Coast							
	GULF County-Bay Regions							
	FRANKLIN County-Gulf Coast							
	FRANKLIN County-Bay Regions							
	WAKULLA County-Gulf Coast							
	WAKULLA County-Bay Regions							
	JEFFERSON County-Gulf Coast							
	TAYLOR County-Gulf Coast							

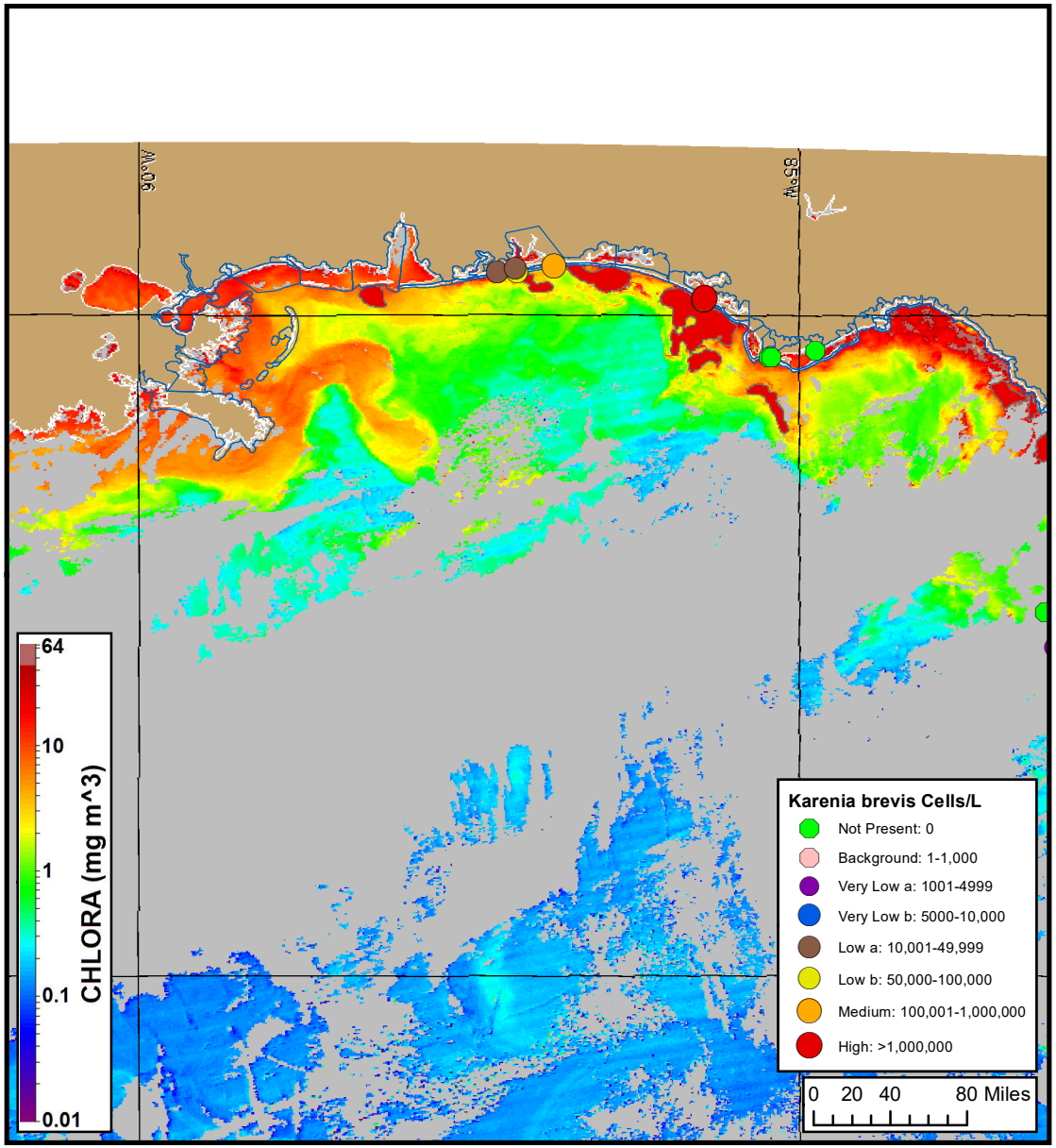
The table lists the highest level of potential respiratory irritation forecast. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction.

Cells are marked 'none' if *K. brevis* was detected, but no respiratory irritation is forecasted in the region. Cells are blank if no *K. brevis* has been detected in the region.

Wind conditions from Panama City Beach, FL



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS). A text summary of the marine forecast by region is available from NWS at https://go.usa.gov/xnx4X.



Karenia brevis cell concentration sampling data from: 11/09/18 through 11/14/18. Cell count data are provided by Florida FWC Fish and Wildlife Research Institute. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide: https://tidesandcurrents.noaa.gov/hab/hab_publication/GOMX_HAB_Bulletin_Guide.pdf. Detailed sample information can be obtained through the Florida FWC Fish and Wildlife Research Institute: http://myfwc.com/REDTIDESTATUS.

MODIS Aqua satellite chlorophyll image (11/18/18) with possible *K. brevis* HAB areas shown by red polygon(s).

Analysis

***Due to the upcoming federal holiday, the next bulletin will be issued on Friday, November 23*

Summary of Recent Water Samples:

***K. brevis* Cell Concentrations:**
Range: Not Present through High
Date: 11/09-11/14
Source: FWRI, MML

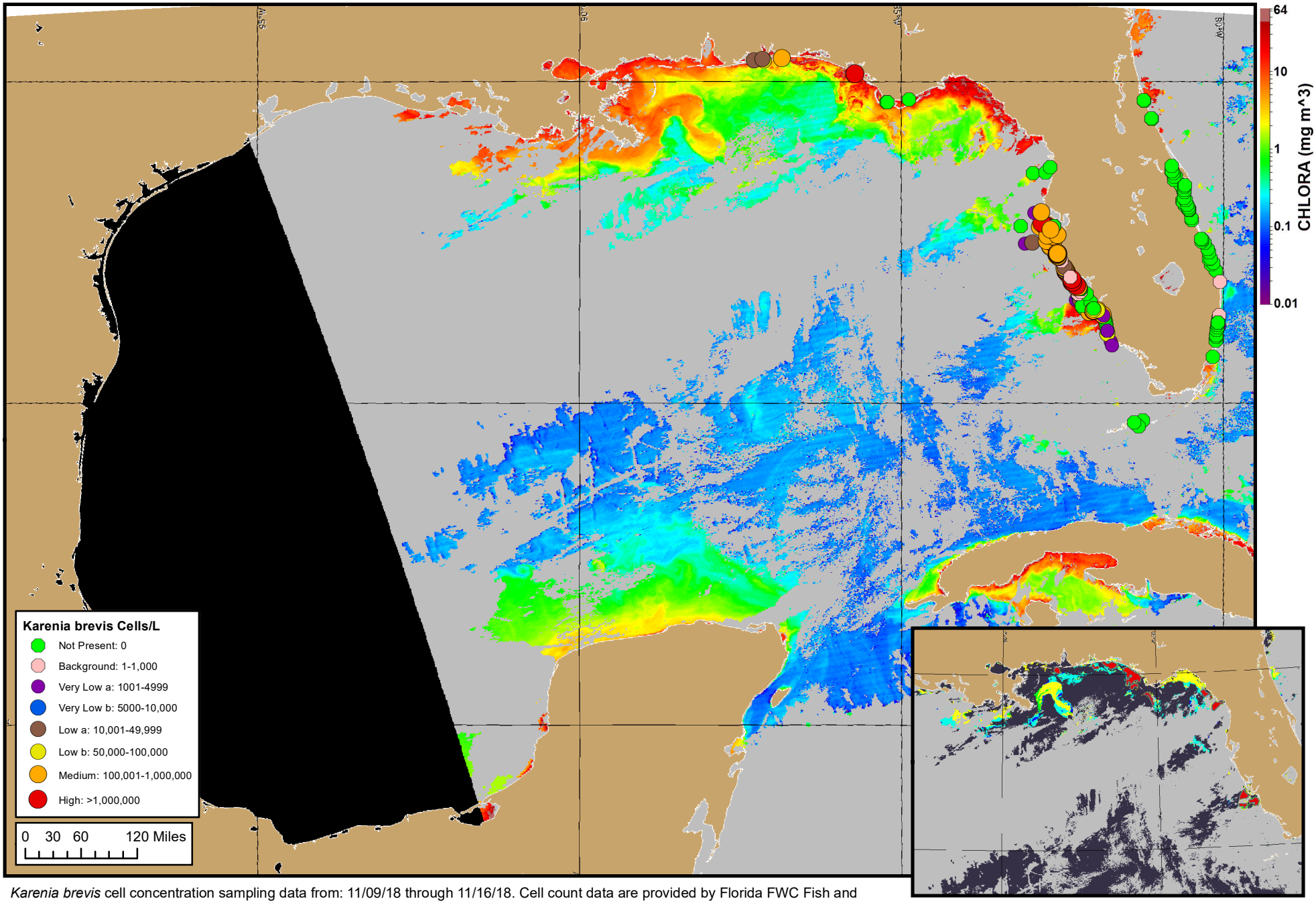
Imagery:

In recent ensemble imagery (MODIS Aqua, 11/18), patches of elevated to very high chlorophyll (2 to >20 µg/L) with the optical characteristics of *K. brevis* are visible alongshore Mobile County, Alabama and from Escambia to Bay counties in northwest Florida. Additional patches are visible 13 miles offshore Franklin County and 4 miles offshore Dixie and Levy counties.

Forecasts:

Offshore winds forecast Monday through Friday (11/19-23) will decrease the potential for respiratory irritation at the coast of northwest Florida and promote the westward transport of surface *K. brevis* concentrations.

Ludema, Davis



Karenia brevis cell concentration sampling data from: 11/09/18 through 11/16/18. Cell count data are provided by Florida FWC Fish and Wildlife Research Institute. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide: https://tidesandcurrents.noaa.gov/hab/hab_publication/GOMX_HAB_Bulletin_Guide.pdf. Detailed sample information can be obtained through the Florida FWC Fish and Wildlife Research Institute: http://myfwc.com/REDTIDESTATUS.

MODIS Aqua satellite chlorophyll image (11/18/18).

Verified and suspected HAB areas shown in red. Other areas with *K. brevis* optical characteristics shown in yellow (see p. 4 analysis for interpretation).