



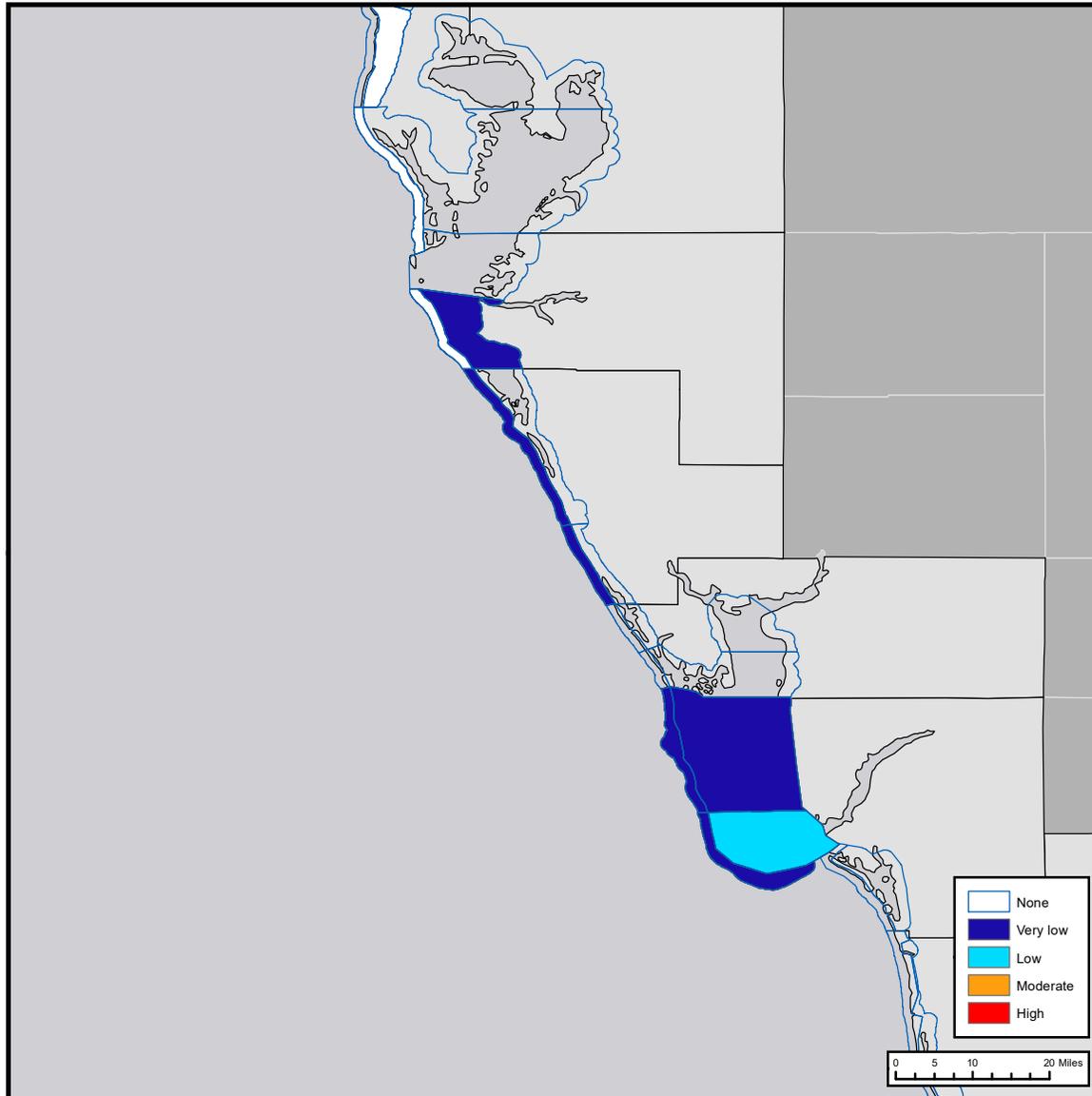
# Gulf of Mexico Harmful Algal Bloom Bulletin

Thursday, December 3, 2020  
 NOAA National Ocean Service  
 NOAA Satellite and Information Service  
 NOAA National Weather Service

## Region: Southwest Florida



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 12-03-20 to 12-07-20 displaying the highest level of potential respiratory irritation forecasts in each region.

### Conditions Report

Not present to medium concentrations of *Karenia brevis* (commonly known as red tide) are present along- and offshore portions of southwest Florida, and are not present in the Florida Keys. *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.

**\*\*Note:** As of today, December 3, southwest Florida bulletins (Dixie County, FL to Florida Keys) will be issued twice weekly until conditions no longer warrant. \*\*

#### Recently Reported Impacts (Listed by County):

**Respiratory irritation:** Pinellas  
**Dead fish:** Pinellas

#### Definition of respiratory irritation levels.

RESPIRATORY IRRITATION LEVEL	AFFECTED POPULATION				
	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/harmful-algae-blooms/index.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	Thu 12/03	Fri 12/04	Sat 12/05	Sun 12/06	Mon 12/07		
Florida								
	DIXIE County-Gulf Coast							
	LEVY County-Gulf Coast							
	CITRUS County-Gulf Coast							
	HERNANDO County-Gulf Coast							
	Northern PASCO County-Gulf Coast							
	Southern PASCO County-Gulf Coast							
	Northern PINELLAS County-Gulf Coast							
	Northern PINELLAS County-Bay Regions	none	none	none	none	none		
	Northern PINELLAS County, Upper Bay Area-Bay Regions							
	Southern PINELLAS County-Gulf Coast	none	very low	very low	none	none		
	Southern PINELLAS County-Bay Regions							
	PINELLAS and Northern MANATEE County-Bay Regions	none	none	none	none	none		
	South MANATEE County-Gulf Coast	none	very low	very low	none	none		
	South MANATEE County-Bay Regions	very low						
	North SARASOTA County-Gulf Coast	very low	low	low	very low	very low		
	North SARASOTA County-Bay Regions							
	Southern SARASOTA County-Gulf Coast	very low	moderate	moderate	very low	very low		
	Southern SARASOTA County-Bay Regions							
	North CHARLOTTE County-Gulf Coast							
	North CHARLOTTE County-Bay Regions							
	Southern CHARLOTTE County-Gulf Coast							
	Southern CHARLOTTE County-Bay Regions							
	Upper CHARLOTTE Harbor-Bay Regions							
	Northern LEE County-Gulf Coast	very low	low	low	very low	very low		
	Northern LEE County-Bay Regions	very low						
	Central LEE County-Gulf Coast	very low	moderate	moderate	very low	very low		

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.

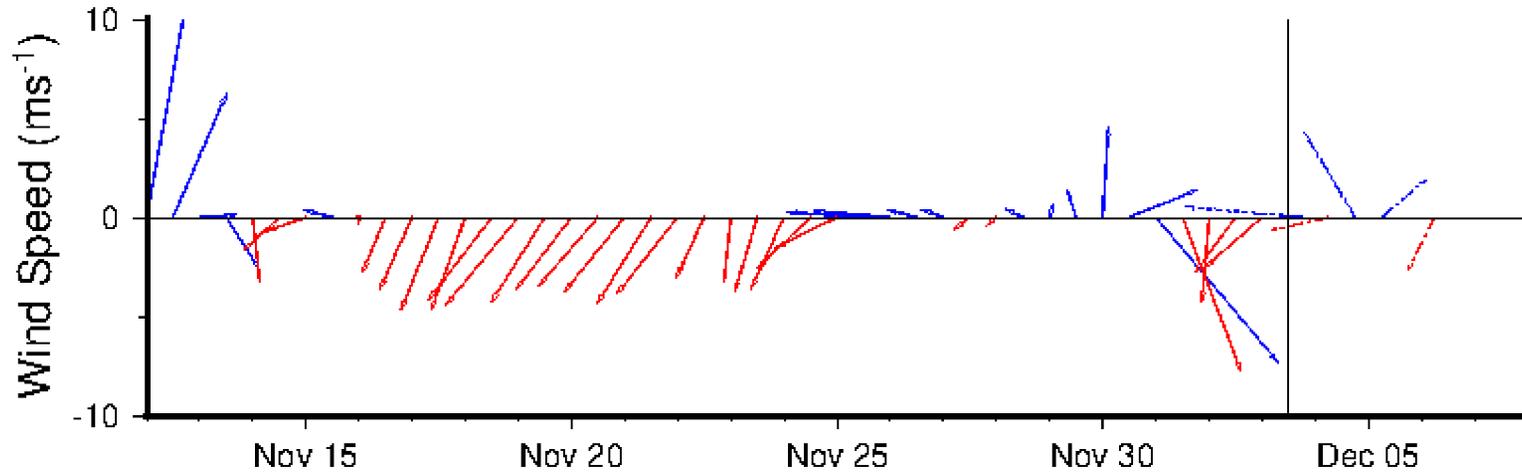
Cells are marked 'none' if *K. brevis* was detected, but no respiratory irritation is forecasted in the region. Cells are blank if no *K. brevis* has been detected in the region.

State Name	County Region	Thu 12/03	Fri 12/04	Sat 12/05	Sun 12/06	Mon 12/07		
<b>Florida</b>								
	<b>Central LEE County-Bay Regions</b>	low	low	low	low	low		
	<b>Southern LEE County-Gulf Coast</b>							
	<b>Southern LEE County-Bay Regions</b>							
	<b>Northern COLLIER County-Gulf Coast</b>							
	<b>Northern COLLIER County-Bay Regions</b>							
	<b>Central COLLIER County-Gulf Coast</b>							
	<b>Central COLLIER County-Bay Regions</b>							
	<b>Southern COLLIER County-Gulf Coast</b>							
	<b>Northern MONROE County-Gulf Coast</b>							
	<b>Southern MONROE County-Gulf Coast</b>							
	<b>UPPER KEYS-Oceanside</b>							
	<b>UPPER KEYS and FLORIDA BAY-Gulfside</b>							
	<b>MIDDLE KEYS-Oceanside</b>							
	<b>MIDDLE KEYS-Gulfside</b>							
	<b>LOWER KEYS-Oceanside</b>							
	<b>LOWER KEYS-Gulfside</b>							

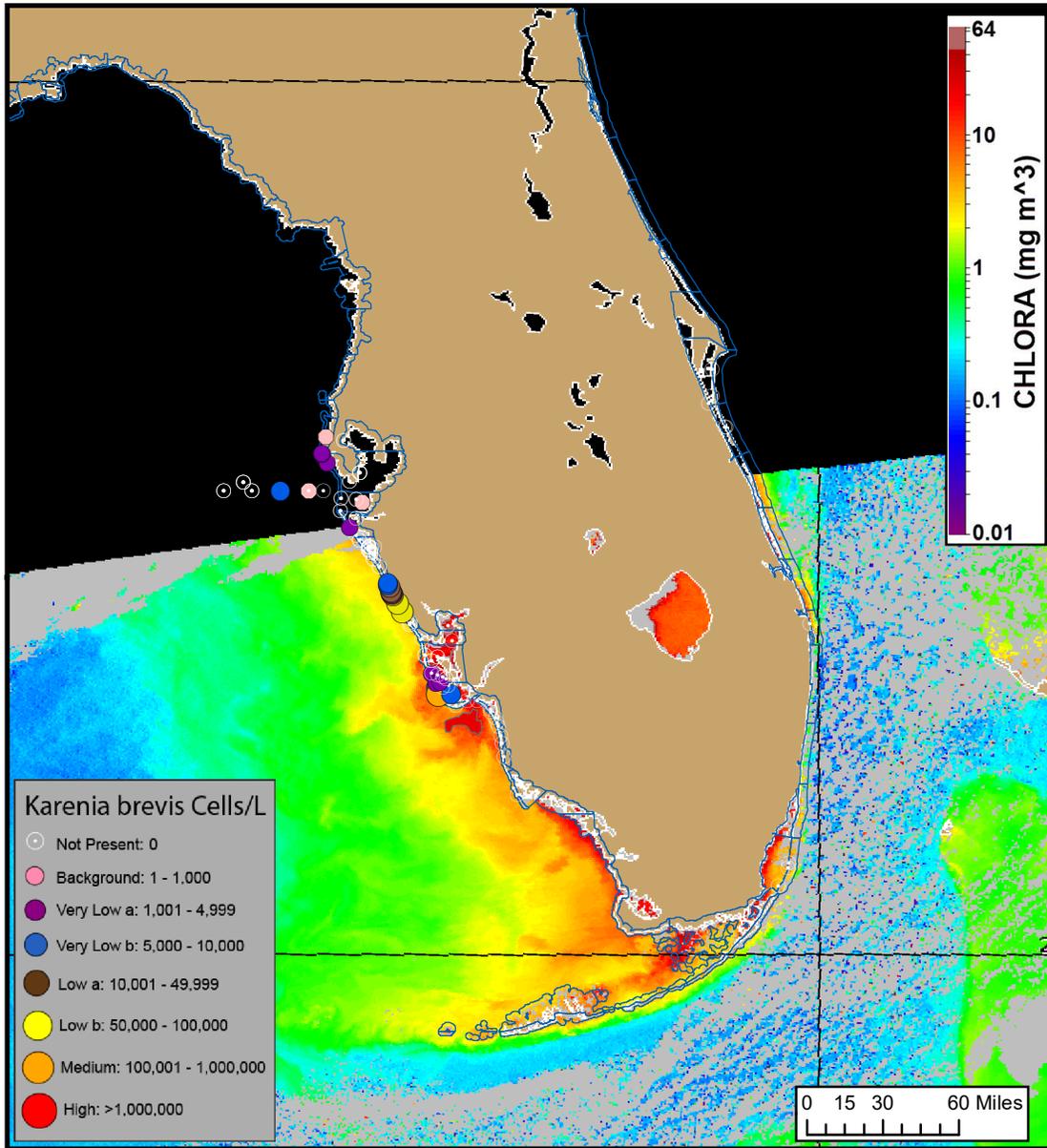
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## Wind conditions from Venice Pier, FL



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 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://www.weather.gov/marine/stheastmz>.



## Analysis

### Summary of Recent Water Samples:

***K. brevis* Cell Concentrations:**  
**Range:** Not Present through Medium  
**Date:** 11/23-12/01  
**Source:** FWRI, MML, SCHD

### Imagery:

Recent satellite imagery (VIIRS, 12/2) is obscured by clouds north of Tampa Bay, preventing analysis of that region. Patches of elevated to very high chlorophyll (2 to >20 µg/L) containing the optical characteristics of *K. brevis* are currently present along- and offshore central and southern Lee County, extending up to 25 miles southwest of Ft. Myers Beach; and have been observed moving southwards throughout the week. Additional sampling alongshore Collier County is recommended.

### Forecasts:

Forecast winds today through Saturday (12/3-5) will promote the potential for southward transport of surface *K. brevis* concentrations towards Collier County. Periods of onshore winds late Friday through Saturday (12/4-5) will increase the potential for respiratory irritation at the coast.

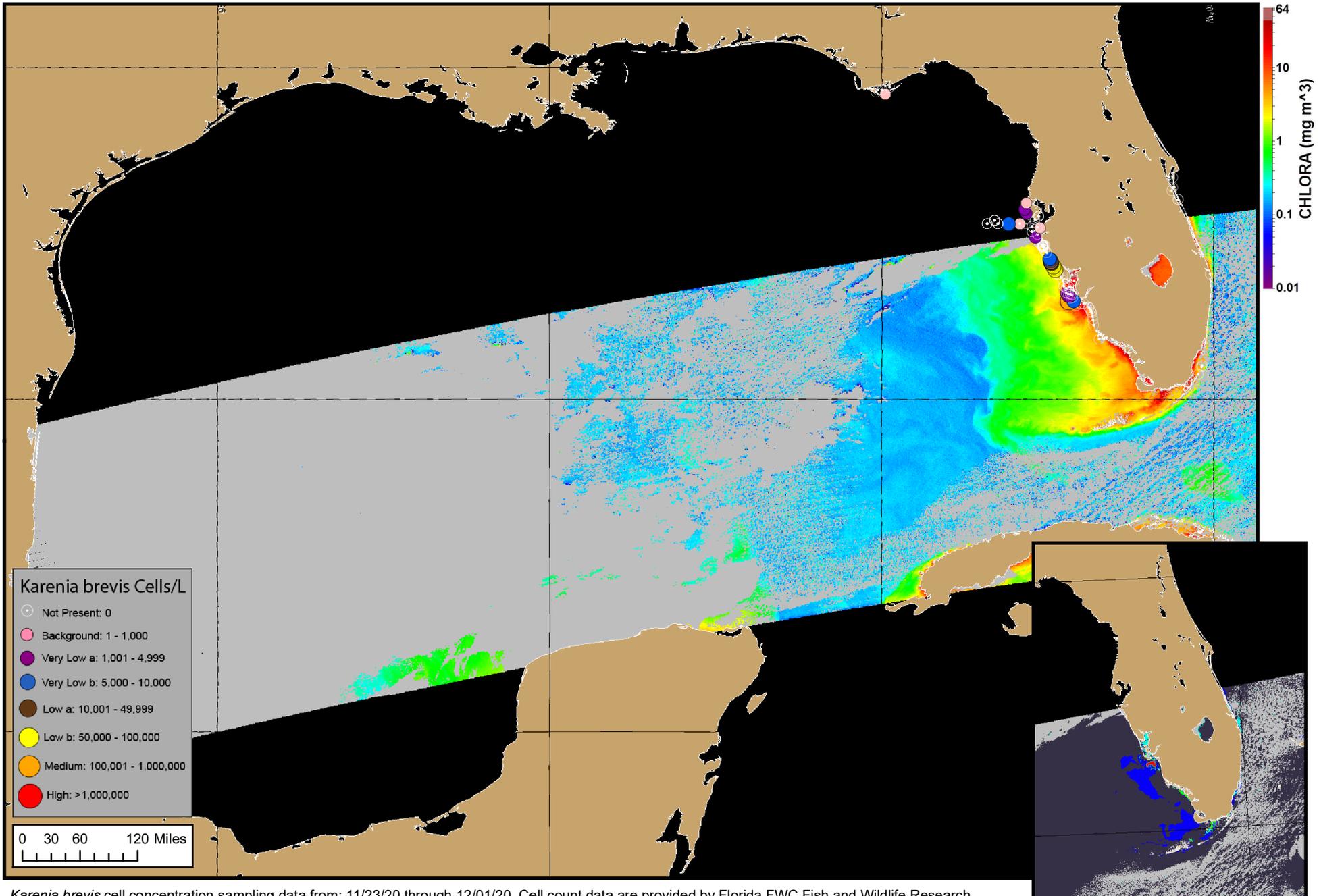
Additional satellite imagery available here:

<https://tidesandcurrents.noaa.gov/hab/gomx/data/Imagery-EasternGOMX/>

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*Karenia brevis* cell concentration sampling data from: 11/23/20 through 12/01/20. 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](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>.

VIIRS satellite chlorophyll image (12/02/20) with possible *K. brevis* HAB areas shown by red polygon(s).



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