



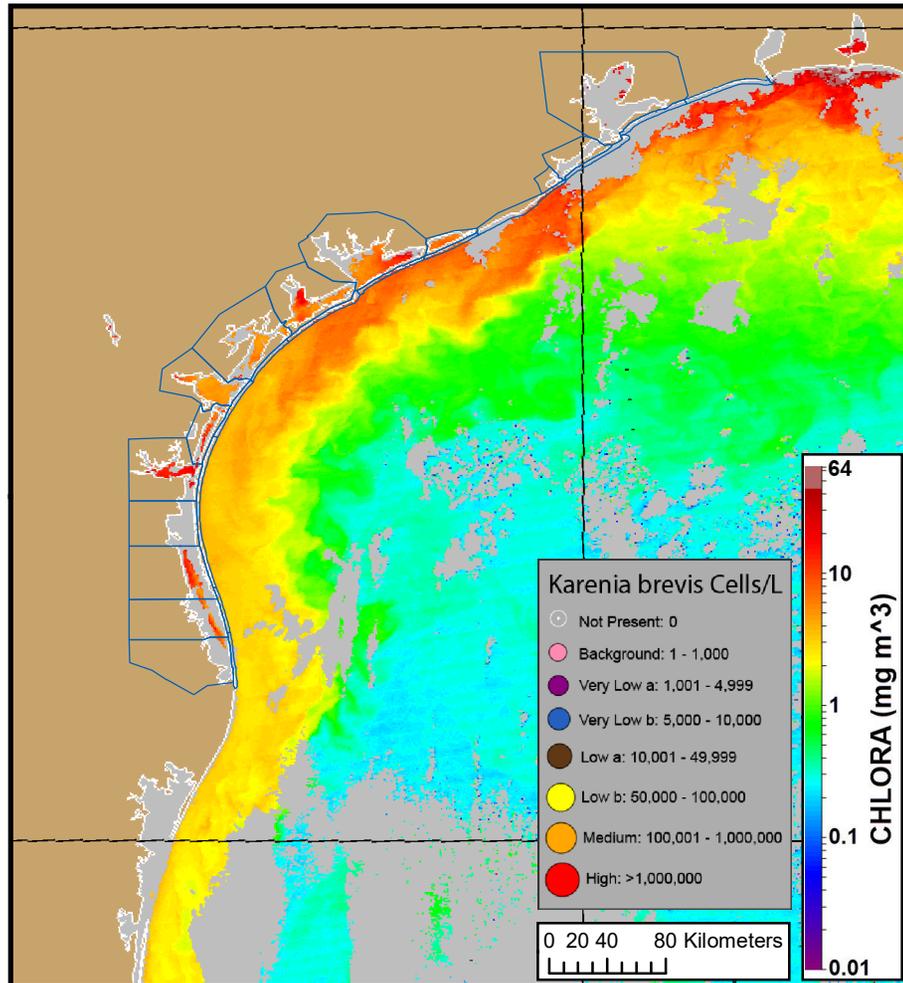
# Gulf of Mexico Harmful Algal Bloom Bulletin

Monday, December 16, 2019  
NOAA National Ocean Service  
NOAA Satellite and Information Service  
NOAA National Weather Service

Region: Texas



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



## Conditions Report

Not present to background concentrations of *Karenia brevis* (commonly known as red tide) are present alongshore portions of the Texas coast. No respiratory irritation associated with *K. brevis* is expected in this region.

## Analysis

### Imagery:

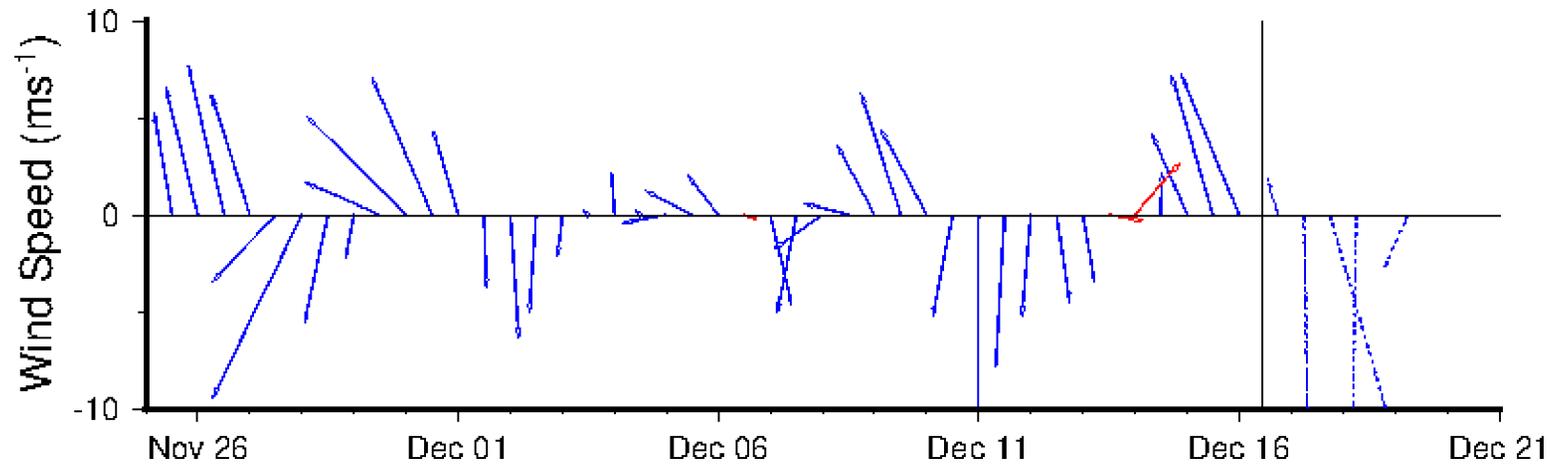
Recent ensemble imagery (MODIS Aqua, 12/15), is partially covered by clouds alongshore the Texas coast from Sabine Pass to Matagorda Bay, limiting analysis. Elevated to very high chlorophyll (2 to >20  $\mu\text{g/L}$ ) with some of the optical characteristics of *K. brevis* are visible alongshore and offshore of the Texas coast from Sabine Pass to the Rio Grande in areas where imagery is free from clouds. Elevated chlorophyll in this region is most likely due to the resuspension of benthic chlorophyll and sediments along the coast.

Jima, Davis

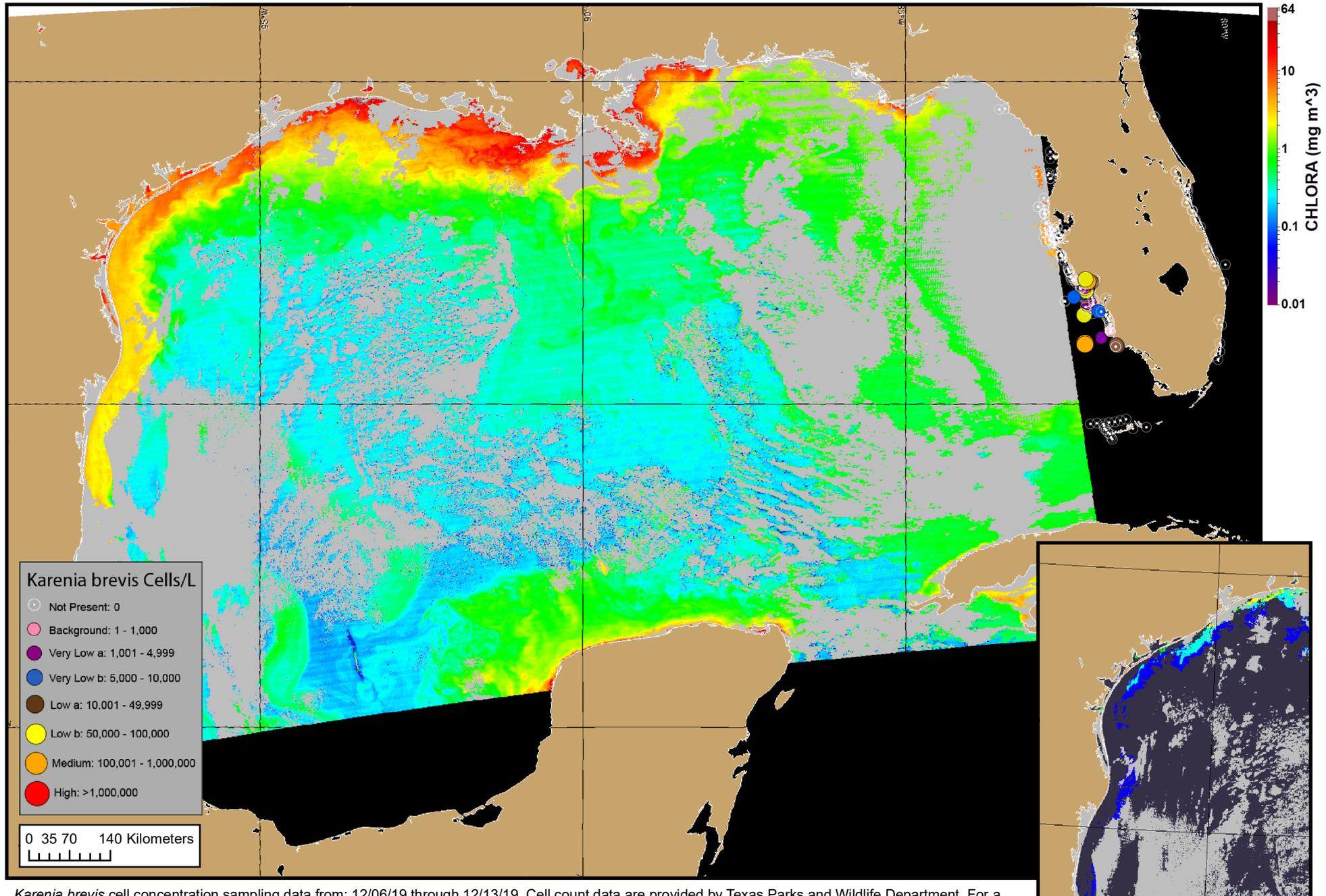
*Karenia brevis* cell concentration sampling data from: 12/06/19 through 12/13/19. Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide: [https://tidesandcurrents.noaa.gov/hab/hab\\_publication/GOMX\\_HAB\\_Bulletin\\_Guide.pdf](https://tidesandcurrents.noaa.gov/hab/hab_publication/GOMX_HAB_Bulletin_Guide.pdf). Detailed sample information can be obtained through the Texas Parks and Wildlife Department at: <http://www.tpwd.state.tx.us/landwater/water/enviroconcerns/hab/redtide/status.shtml>.

MODIS Aqua satellite chlorophyll image (12/15/19) with possible *K. brevis* HAB areas shown by red polygon(s).

### Wind conditions from Port Aransas-Coast, TX



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>.



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Verified and suspected HAB areas shown in red. Other areas with *K. brevis* optical characteristics shown in yellow (see p. 1 analysis for interpretation).

MODIS Aqua satellite chlorophyll image (12/15/19).