



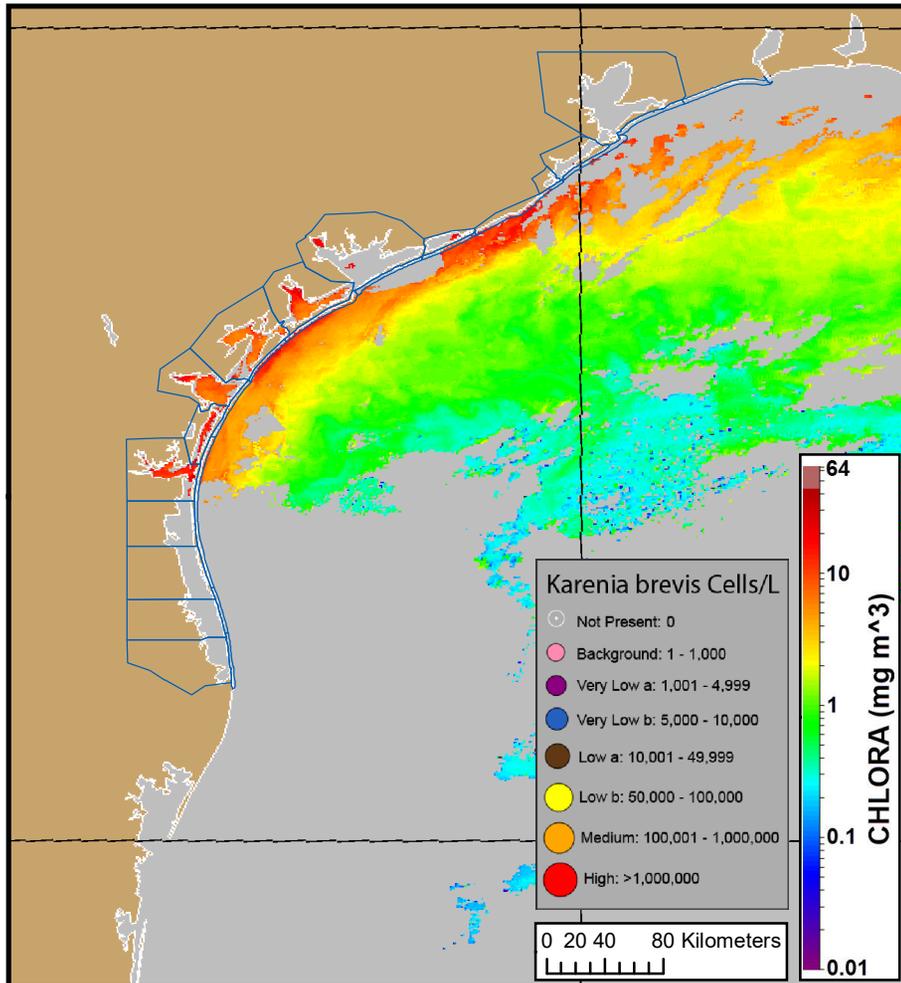
Gulf of Mexico Harmful Algal Bloom Bulletin

Monday, November 4, 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* expected in this region.

Analysis

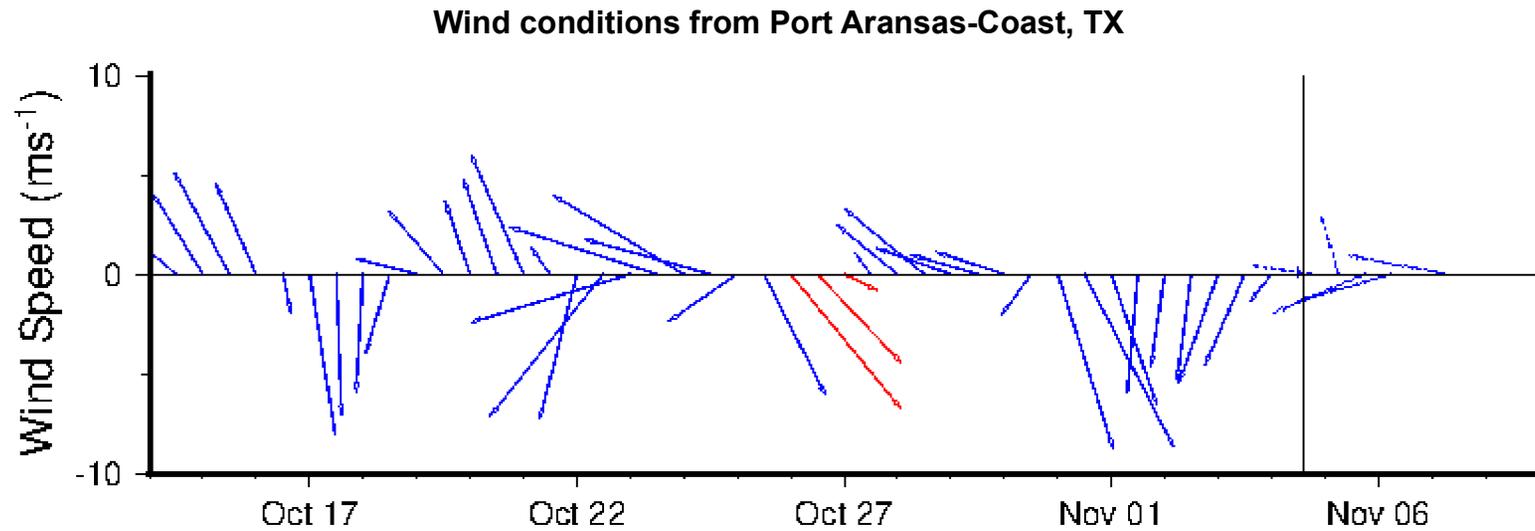
Imagery:

Recent ensemble imagery (MODIS Aqua, 11/2) is partially obscured by clouds from Sabine Pass to Galveston Bay. Patches of elevated to high chlorophyll (2 to 12 $\mu\text{g/L}$) are present along the Texas coast from Galveston Island to the Rio Grande. None of the patches contain the optical characteristics of *K. brevis*. Elevated chlorophyll in this region is likely due to the resuspension of benthic chlorophyll and sediments along the coast.

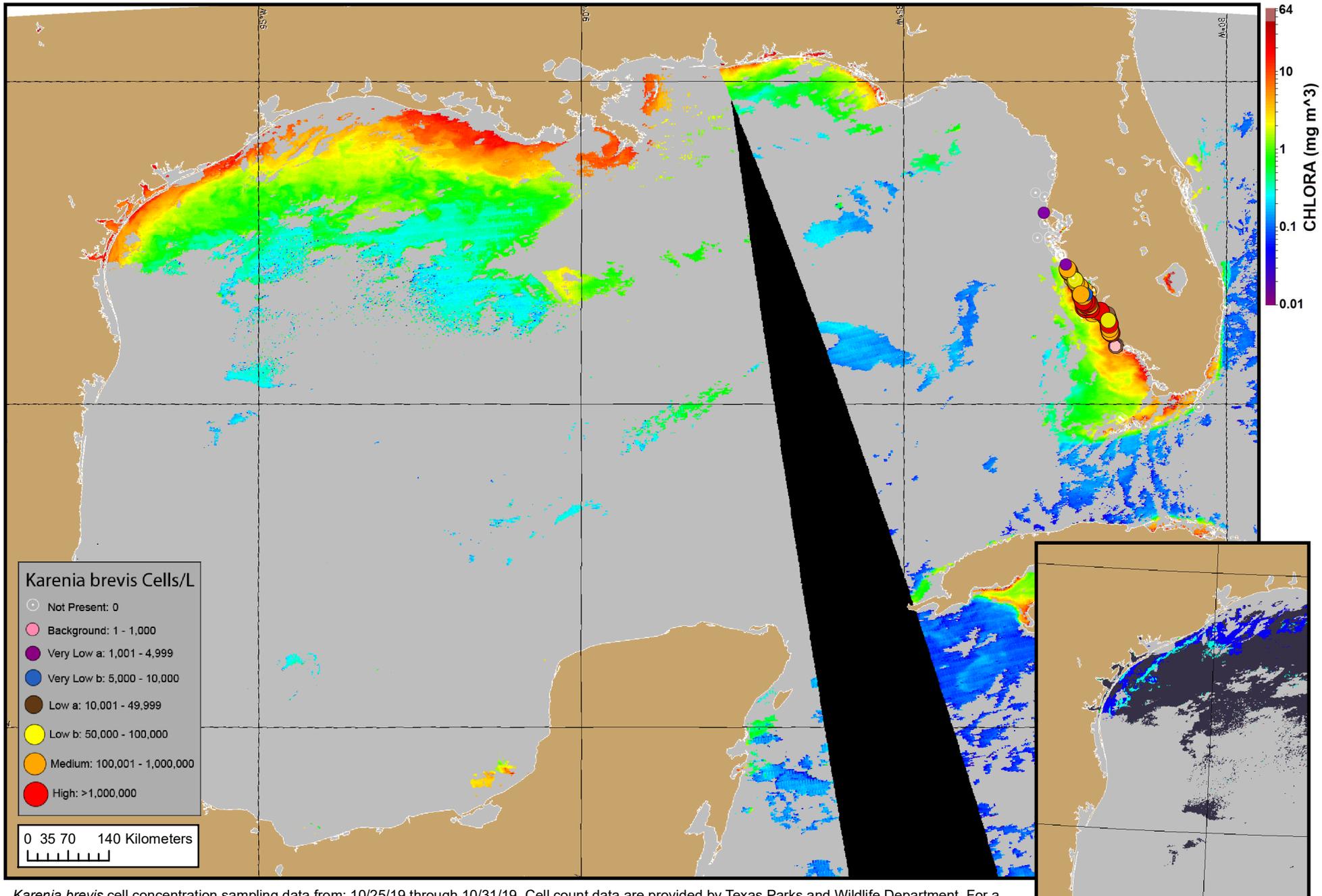
Keeney, Jima

Karenia brevis cell concentration sampling data from: 10/25/19 through 10/31/19. 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. 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.phtml>.

MODIS Aqua satellite chlorophyll image (11/02/19) with possible *K. brevis* HAB areas shown by red polygon(s).



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).