



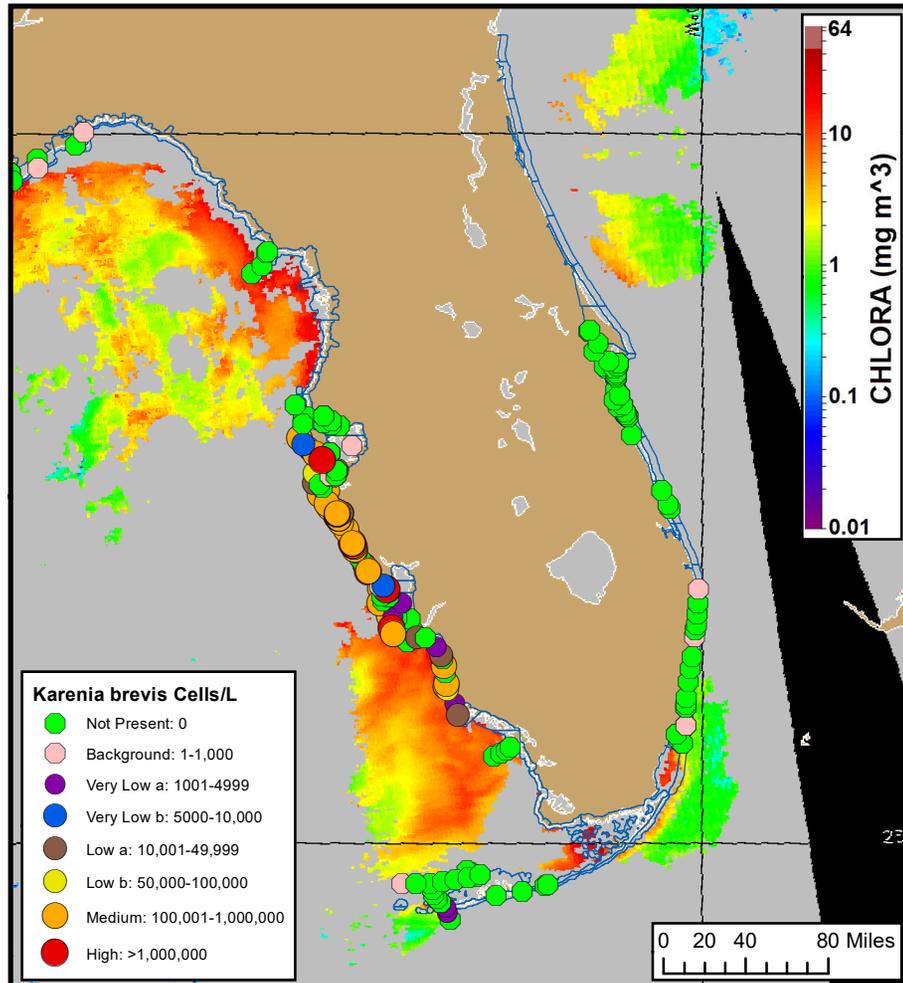
Florida Harmful Algal Bloom Bulletin

Friday, November 30, 2018
NOAA National Ocean Service
NOAA Satellite and Information Service
NOAA National Weather Service

Region: East Florida



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



Karenia brevis cell concentration sampling data from: 11/20/18 through 11/29/18. 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 (11/28/18) with possible *K. brevis* HAB areas shown by red polygon(s).

Conditions Report

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

****Note: As of today, November 30, twice weekly East Florida bulletins will no longer be issued. The region will continue to be monitored and twice weekly bulletins will resume as conditions warrant.****

Recently Reported Impacts (Listed by County):

Respiratory irritation:None
Dead fish:None

Analysis

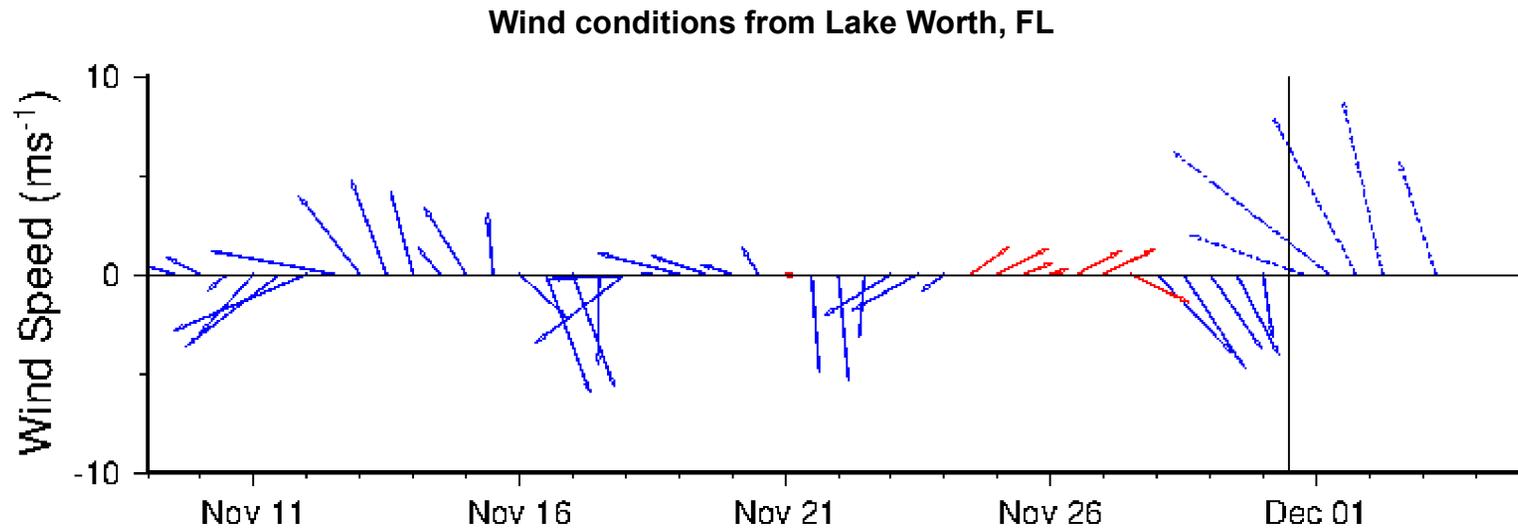
Imagery:

Recent ensemble imagery (MODIS Aqua, 11/28) is mostly obscured by clouds at the coast of east Florida, limiting analysis. Small patches of elevated to high chlorophyll (2-8 µg/L) with some optical characteristics of *K. brevis* along- and offshore Miami-Dade County.

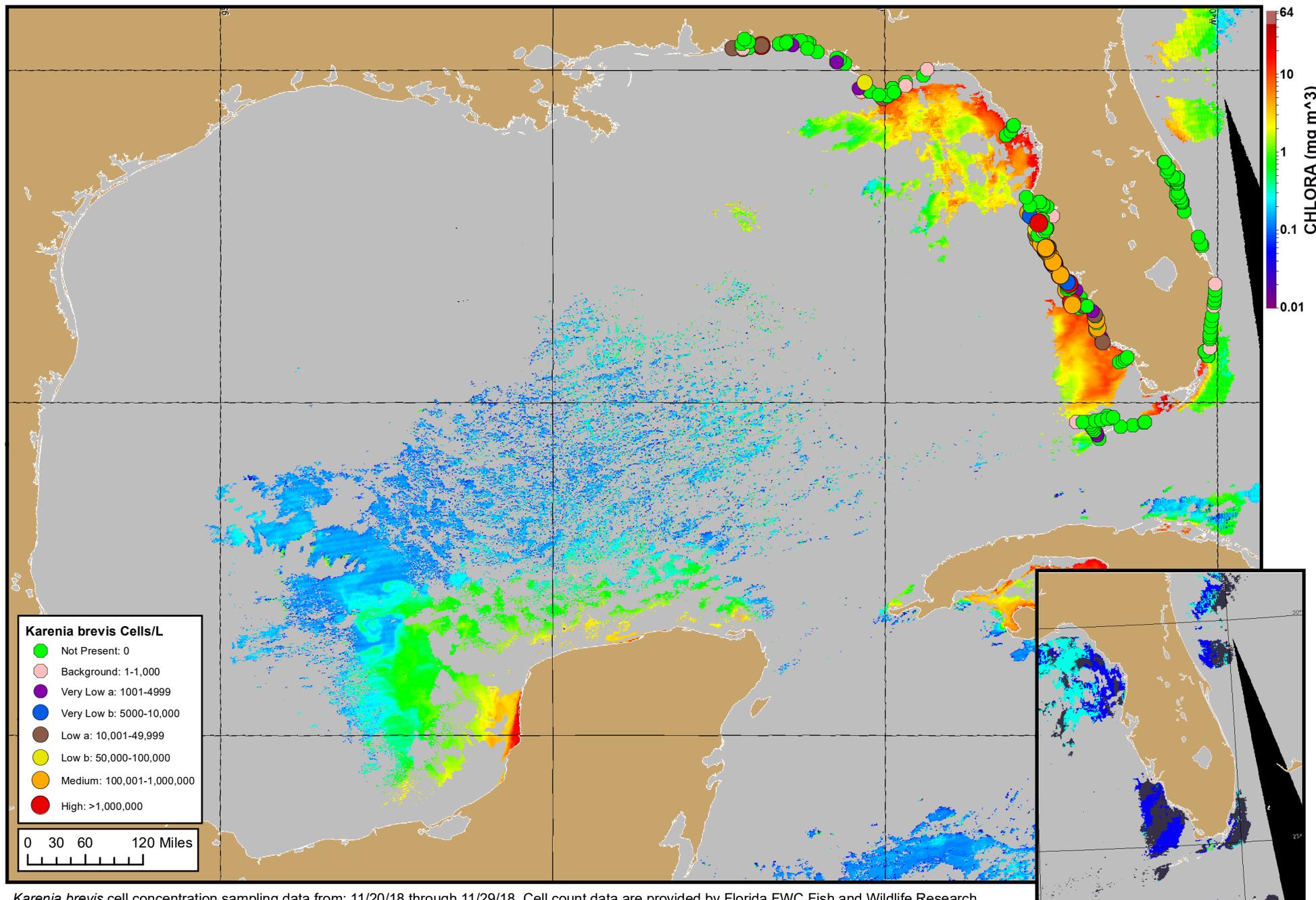
Forecasts:

Forecast winds and currents today and in the next several days will promote the northerly transport of remaining surface *K. brevis* concentrations.

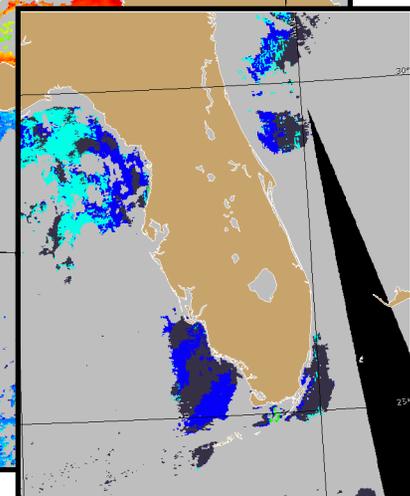
Yang, Ludema



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/xnx4B>.



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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 (11/28/18).