



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

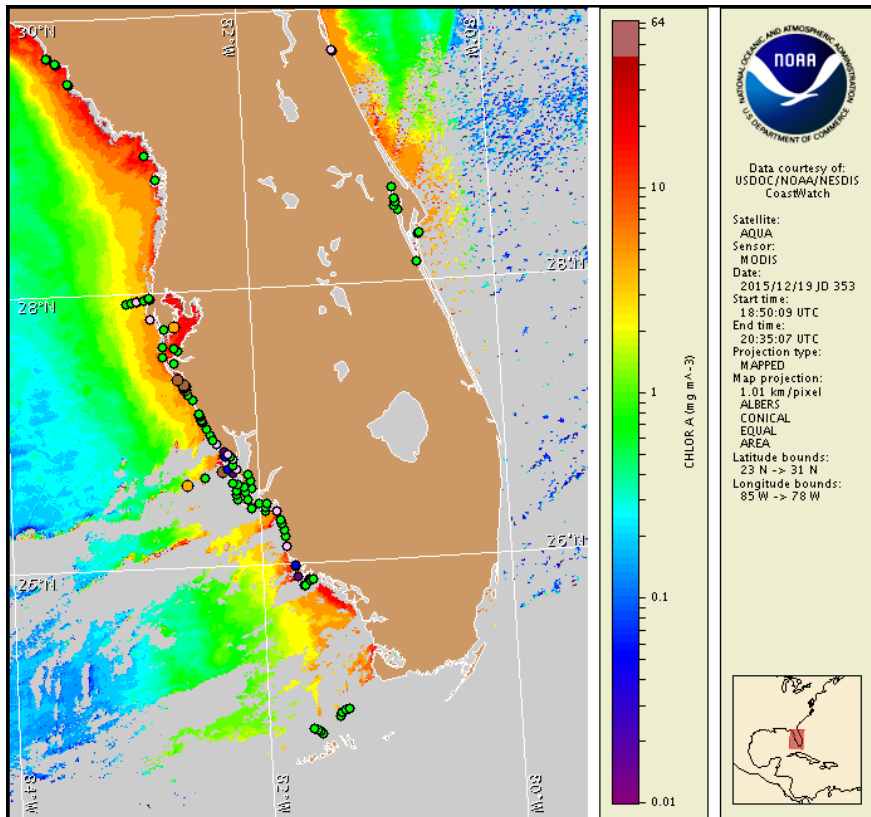
Monday, 21 December 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, December 17, 2015



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from December 11 to 19: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Florida Fish and Wildlife Conservation Commission (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:

http://tidesandcurrents.noaa.gov/hab/habofs_bulletin_guide.pdf

Detailed sample information can be obtained through FWC Fish and Wildlife Research Institute at:

<http://myfwc.com/redtidestatus>

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit at: <http://tidesandcurrents.noaa.gov/hab/bulletins.html>

Conditions Report

Karenia brevis (commonly known as Florida red tide) ranges from not present to medium concentrations along the coast of southwest Florida, and is 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. The highest level of potential respiratory irritation forecast for Monday, December 21 through Thursday, December 24 is listed below:

County Region: Forecast (Duration)

Southern Pinellas, bay regions: Moderate (M-Th)

Northern Sarasota: Very Low (M-Th)

Northern Sarasota, bay regions: Moderate (M-Th)

Southern Charlotte, bay regions: Very Low (M-Th)

Northern Lee, bay regions: Very Low (M-Th)

All Other SWFL County Regions: None expected (M-Th)

All Other NWFL County Regions: Visit <http://tidesandcurrents.noaa.gov/hab/#nwfl>

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Health information, from the Florida Department of Health and other agencies, is available at http://tidesandcurrents.noaa.gov/hab/hab_health_info.html. Respiratory irritation has been reported in Pinellas County. Dead fish have been reported in Pinellas and Sarasota counties.

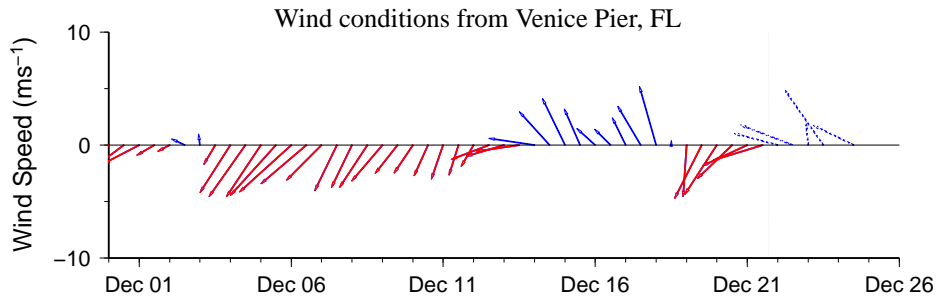
Analysis

Recent samples collected along- and offshore southwest Florida indicate background to 'medium' *Karenia brevis* concentrations from southern Pinellas to northern Lee counties, with the highest concentrations present alongshore southern Pinellas, within the bay regions of northern Sarasota, and offshore northern Lee counties (FWRI, SCHD, CCENRD; 12/11-17). Respiratory irritation has been reported in at Fort DeSoto Beach in Pinellas County (MML; 12/21). Dead fish have been reported in Pinellas County at Ford Desoto Beach and in Sarasota County at Siesta Key, (FWRI, MML; 12/17-21). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: <http://myfwc.com/redtidestatus>.

Recent ensemble imagery (MODIS Aqua, 12/19), is partially obscured by clouds from northern Charlotte to southern Collier counties limiting analysis in that region. Patches of elevated to high chlorophyll (2-12 $\mu\text{g/L}$) with only one of the optical characteristics of *K. brevis* are visible along- and offshore from Pinellas to Collier counties

Southeast winds forecasted Tuesday through Thursday may increase the potential for northerly transport of surface *K. brevis* concentrations alongshore southwest Florida.

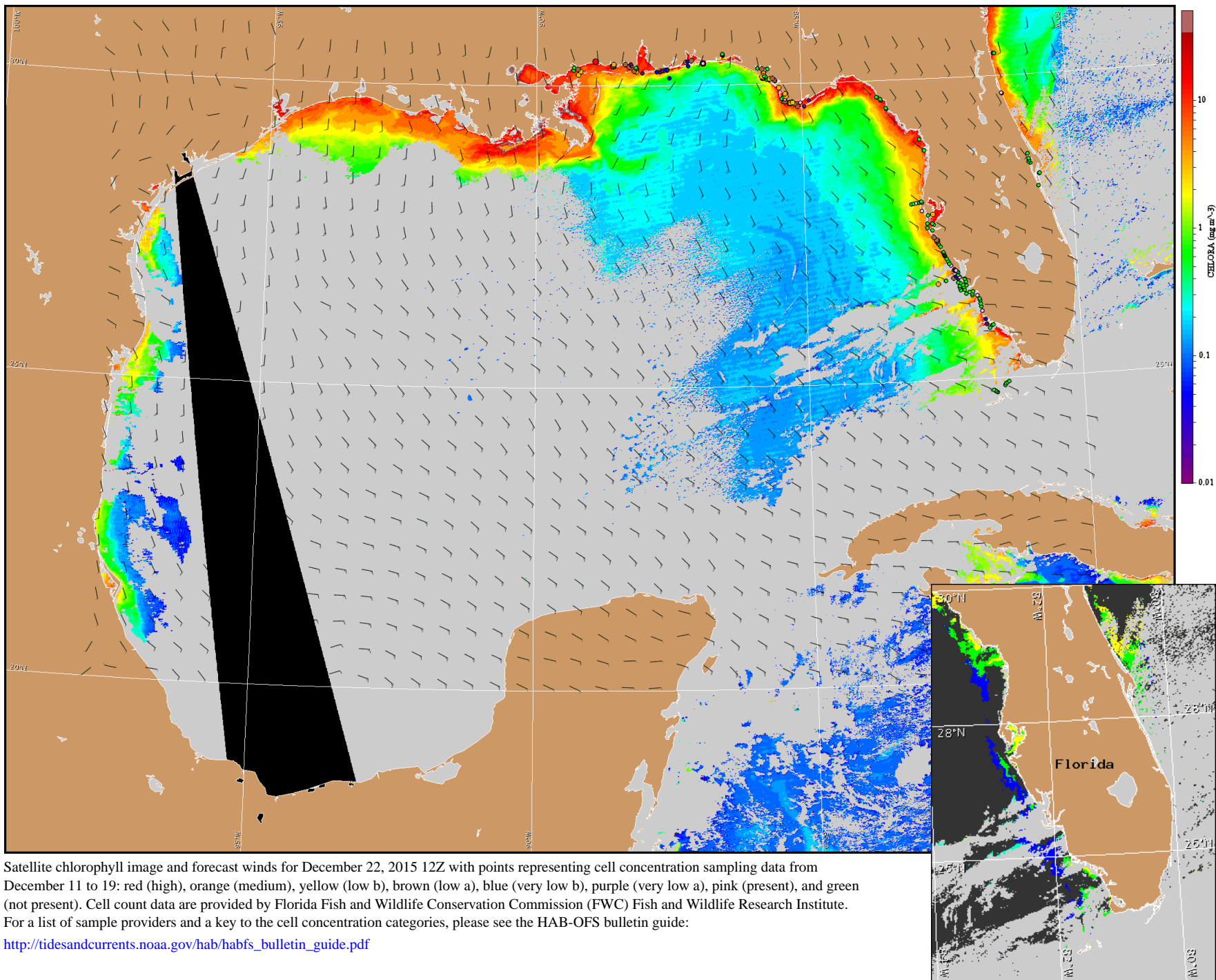
Lalime, Davis



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).

Wind Analysis

Englewood to Tarpon Springs (Venice): East winds (5-10kn, 3-5m/s) today and tonight.
Southeast winds (10-15kn, 5-8m/s) Tuesday through Thursday.



Satellite chlorophyll image and forecast winds for December 22, 2015 12Z with points representing cell concentration sampling data from December 11 to 19: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Florida Fish and Wildlife Conservation Commission (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: http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

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