



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

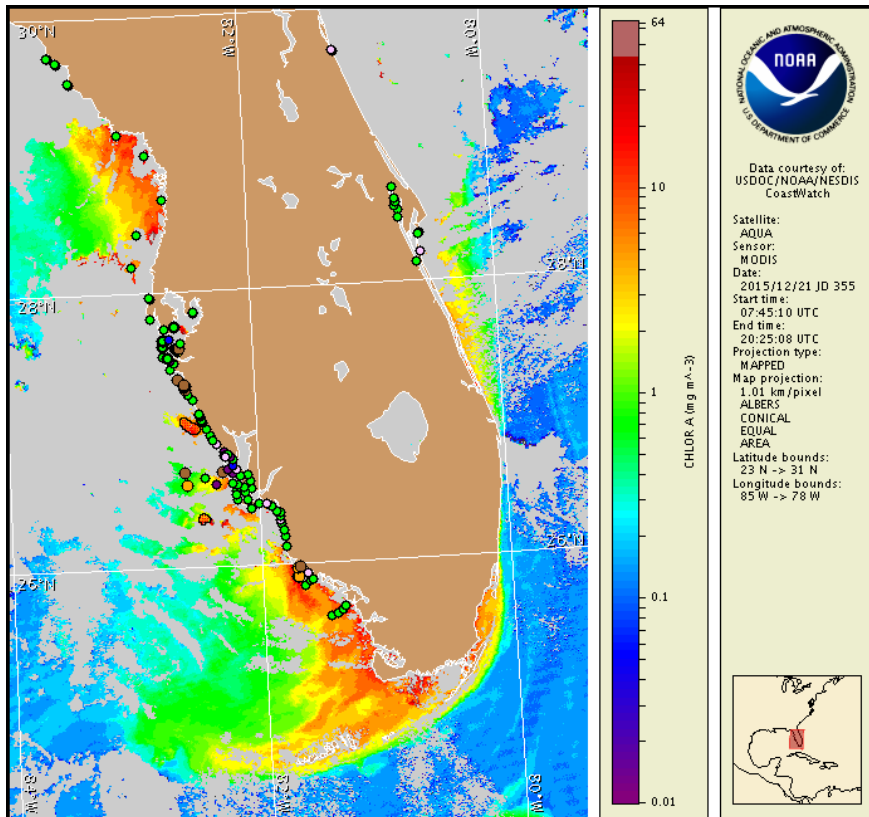
Thursday, 24 December 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, December 21, 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 14 to 23: 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

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 Thursday, December 24 through Monday, December 28 is listed below:

County Region: Forecast (Duration)

Southern Pinellas: Low (Th), Very Low (F-M)

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

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

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

Northern Sarasota: Low (Th), Very Low (F-M)

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

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

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

Central Collier: Very Low (Th-M)

Central Collier, bay regions: Moderate (Th-M)

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

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 and dead fish have been reported in Pinellas and Collier counties.

Analysis

Recent samples collected along- and offshore southwest Florida indicate background to 'medium' *Karenia brevis* concentrations from southern Pinellas to central Collier counties, with the highest concentrations present in the bay regions of southern Pinellas, northern and southern Manatee, offshore northern Lee, and alongshore and in the bay regions of central Collier counties (FWRI, CCENRD, MML; 12/16-21). Respiratory irritation has been reported in at Fort DeSoto Beach in Pinellas County (MML; 12/23); dead fish have been reported near Treasure Island (FWRI; 12/22). Respiratory irritation and dead fish have been reported at Tigertail Beach on Marco Island and in Big Marco Pass (CCENRD; 12/23). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at:

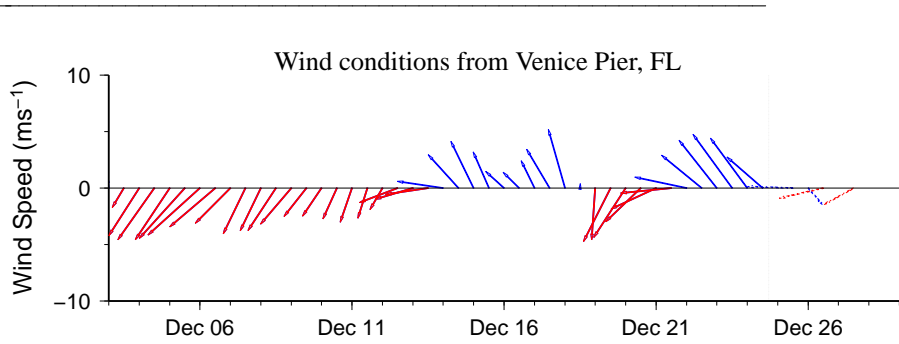
<http://myfwc.com/redtidestatus>.

Recent ensemble imagery (MODIS Aqua, 12/21), is mostly obscured by clouds from Pinellas to central Collier counties limiting analysis in that region. Patches of elevated to high chlorophyll (2-16 $\mu\text{g/L}$) with the optical characteristics of *K. brevis* are visible along- and offshore Sarasota, Lee, and Collier counties.

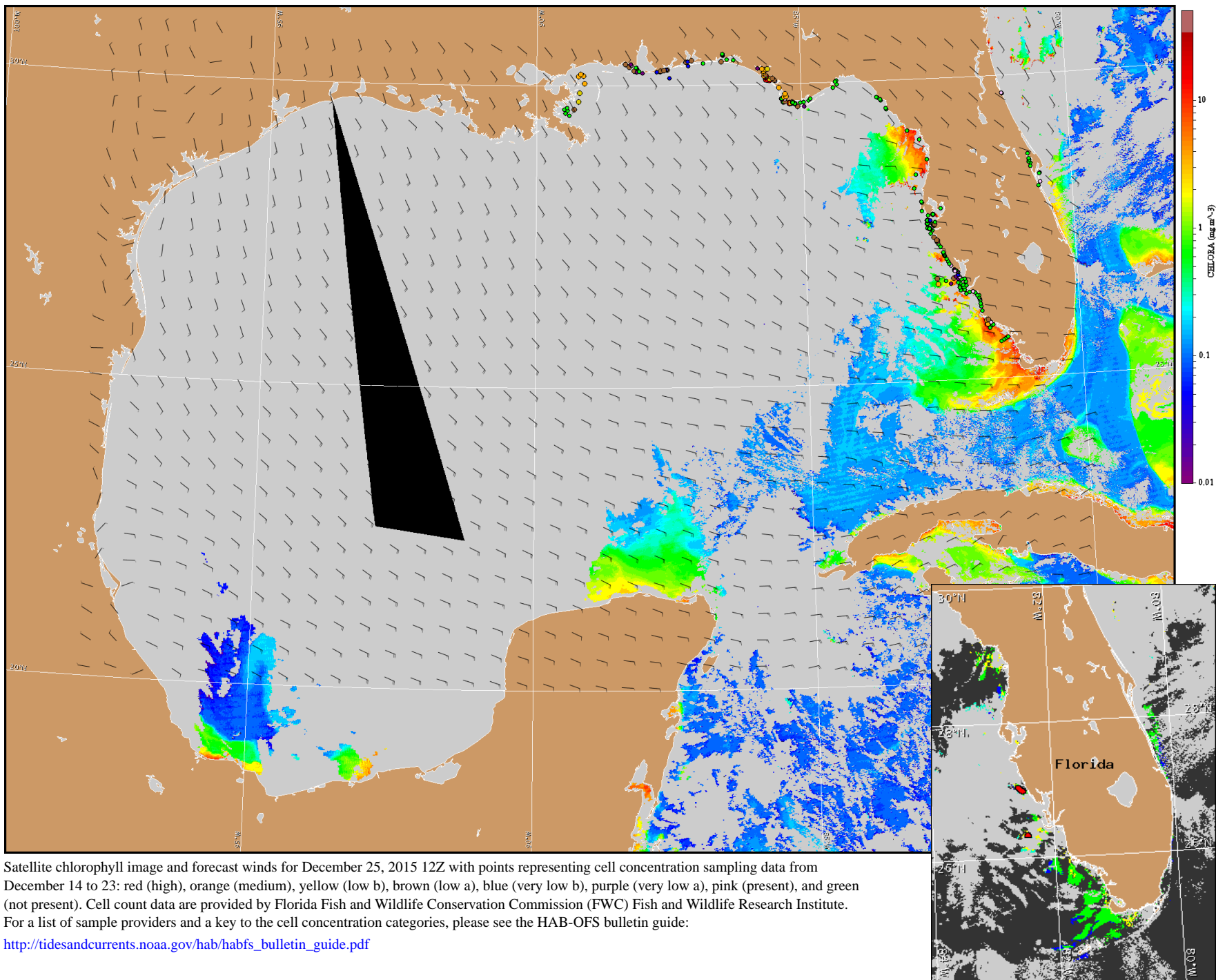
Predominately southeast winds forecasted today through Monday may increase the potential for northerly transport of surface *K. brevis* concentrations alongshore southwest Florida. ~ Lalime, Davis

Wind Analysis

Englewood to Tarpon Springs (Venice): Southeast to south winds (5-15kn, 3-8m/s) today and tonight. East winds (5-15kn) Friday. Southeast winds (5-15kn) Saturday through Monday.



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).



Satellite chlorophyll image and forecast winds for December 25, 2015 12Z with points representing cell concentration sampling data from December 14 to 23: 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:

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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).