



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

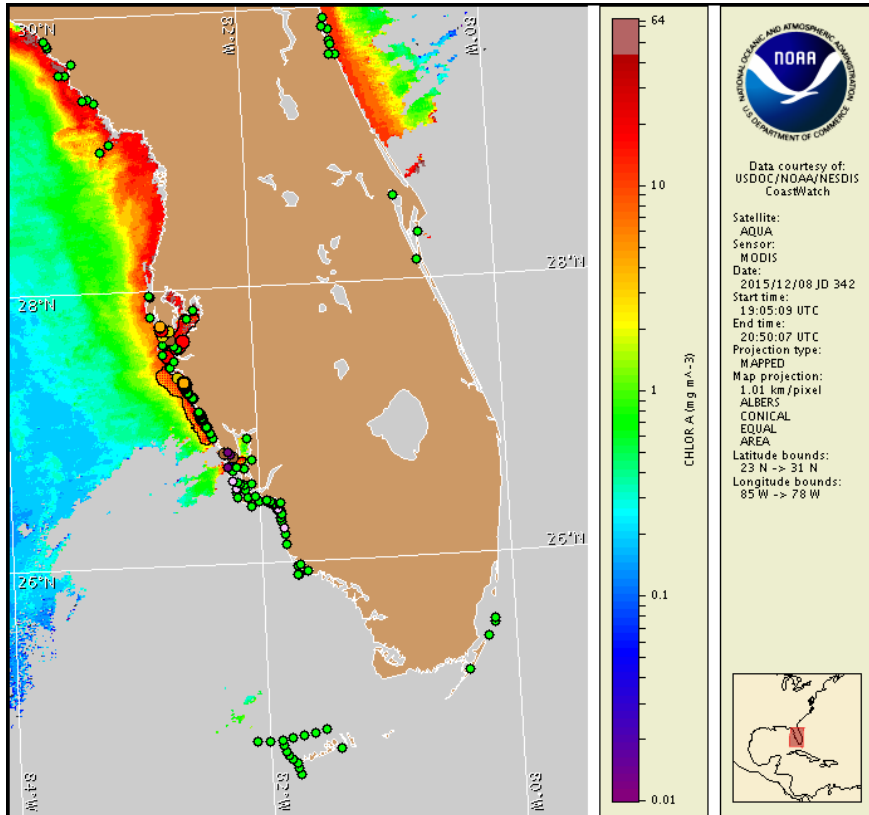
Thursday, 10 December 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, December 7, 2015



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from November 30 to December 9: 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 high 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 10 through Monday, December 14 is listed below:

County Region: Forecast (Duration)

Southern Pinellas: Very Low (Th-Su), Moderate (M)

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

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

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

Northern Sarasota: Very Low (Th-Su), Moderate (M)

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

Southern Sarasota: Very Low (Th-Su), Moderate (M)

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

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

Central Lee, bay regions: Very Low (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. Dead fish have been reported in Pinellas, Manatee, and Sarasota counties.

Analysis

Recent samples collected along- and offshore southwest Florida indicate background to 'high' *Karenia brevis* concentrations from southern Pinellas to northern Collier counties, with the highest concentrations present alongshore the bay regions of southern Pinellas, northern Manatee, and northern Sarasota counties (FWRI, MML, SCHD; 11/30-12/9). Early this week, 'medium' to 'high' *K. brevis* concentrations were identified along Boca Ciega Drive and St. Petersburg Beach in Pinellas County (FWRI; 12/7), joining 'medium' to 'high' *K. brevis* concentrations identified alongshore northern Manatee County and northern Sarasota County last week (FWRI; 12/1-2). Recent sampling indicates that *K. brevis* concentrations have decreased from 'medium' to 'low b' in several locations along northern Sarasota County (SCHD; 11/30-12/7). Background *K. brevis* concentrations have been detected in the Estero Bay region of southern Lee County and alongshore Vanderbilt Beach in northern Collier County (FWRI; 12/7-8). Reports of dead fish have been received from several locations in Pinellas, Manatee, and Sarasota counties. (FWRI; 12/7-9). 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, 12/8) is obscured by clouds along- and offshore the coast of southwest Florida south of Charlotte County, preventing chlorophyll analysis in this region. Patches of elevated to high chlorophyll (3-17 $\mu\text{g/L}$) with the optical characteristics of *K. brevis* are visible along- and offshore Pinellas to Charlotte

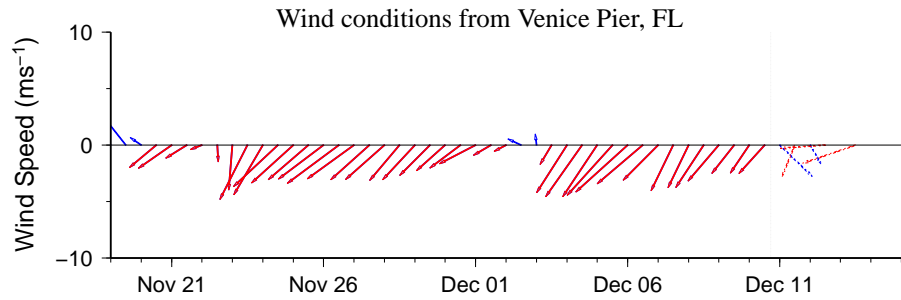
counties.

Variable winds forecasted today through Monday may decrease the potential for transport of surface *K. brevis* concentrations alongshore southwest Florida.

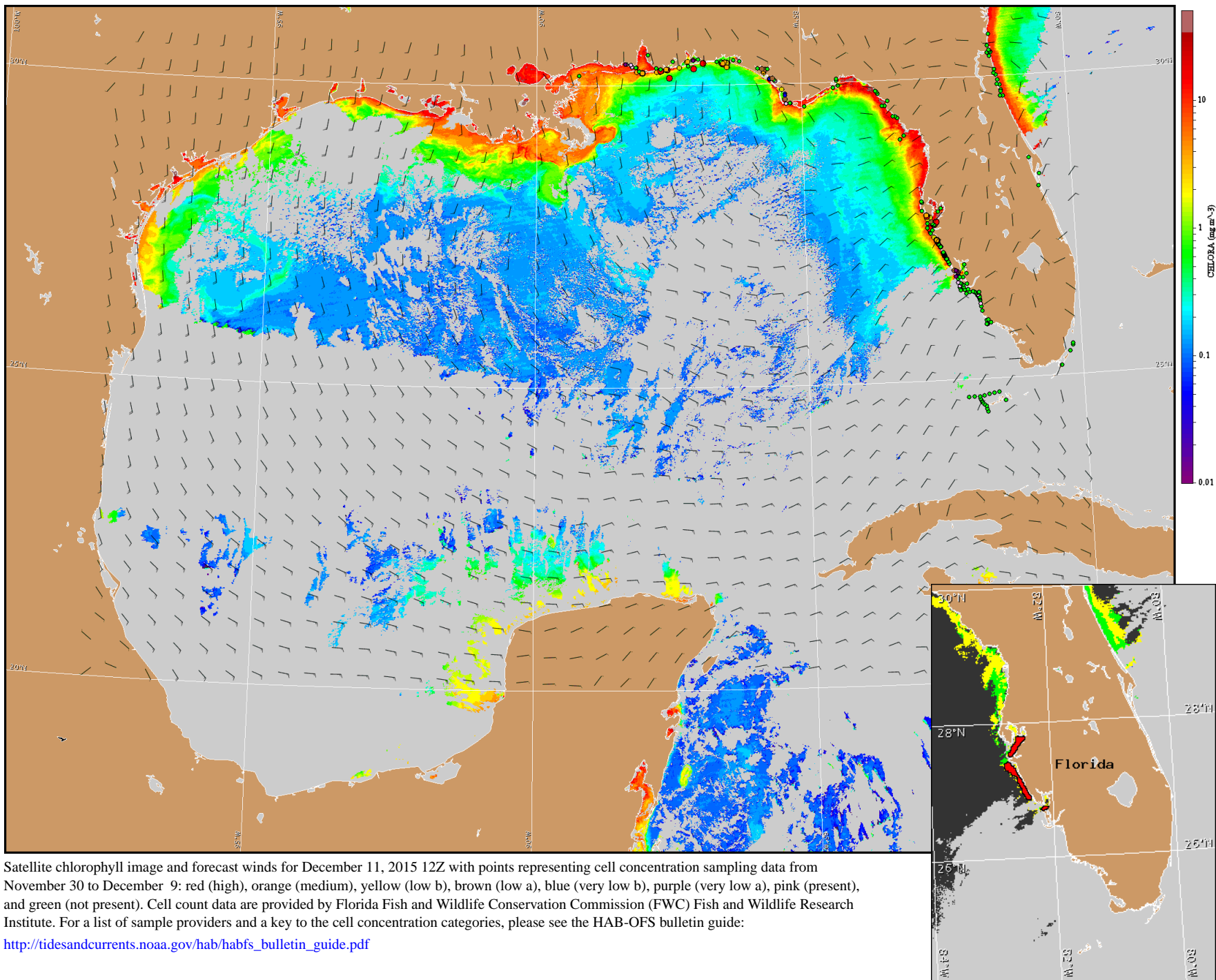
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Wind Analysis

Englewood to Tarpon Springs (Venice): north to northeast winds (5-15kn, 3-8m/s) today and tonight becoming northeast (5-10kn, 3-5m/s) Friday. East winds (10kn, 5m/s) Saturday. Southeast winds (10kn) Sunday. South winds (10kn) 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 11, 2015 12Z with points representing cell concentration sampling data from November 30 to December 9: 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).