



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

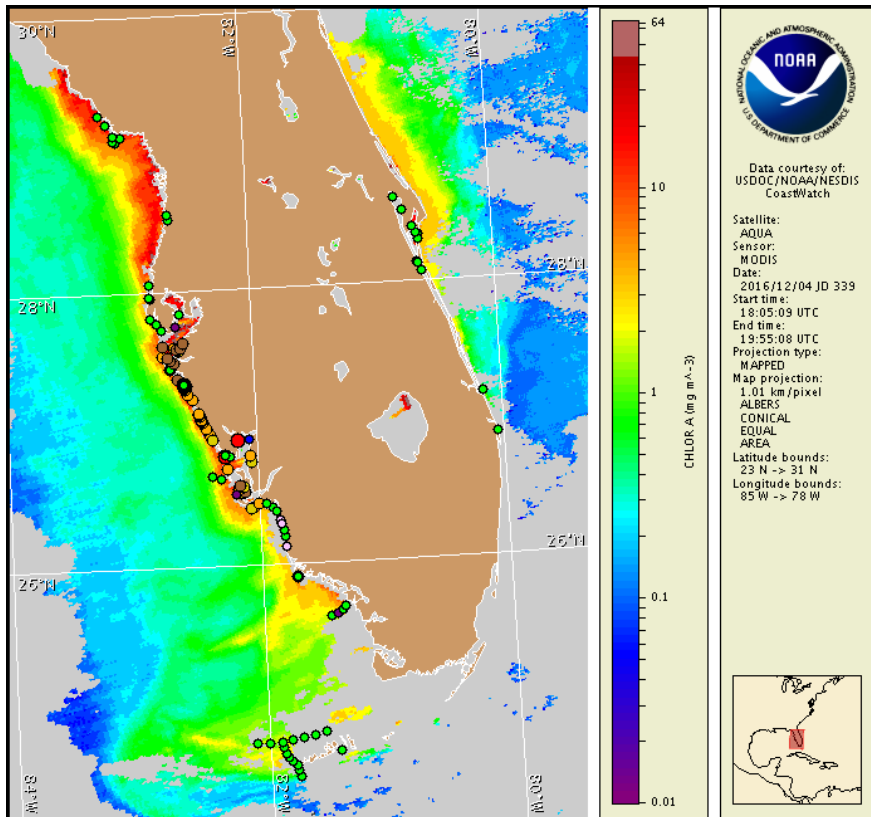
Monday, 05 December 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, December 1, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from November 25 to December 2: 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/hab\\_publication/habfs\\_bulletin\\_guide.pdf](http://tidesandcurrents.noaa.gov/hab/hab_publication/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

Not present to high concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore portions of southwest Florida, and 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 5 through Thursday, December 8 is listed below:

**County Region: Forecast (Duration)**

**Southern Pinellas: Low (M-Th)**

**Southern Pinellas, bay regions: Low (M-Th)**

**Northern Manatee, bay regions: Moderate (M, Tu, Th), Low (W)**

**Southern Manatee: Moderate (M, Tu, Th), Low (W)**

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

**Northern Sarasota: Moderate (M, Tu, Th), Low (W)**

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

**Southern Sarasota: Moderate (M, Tu, Th), Low (W)**

**Southern Sarasota, bay regions: Moderate (M-Th)**

**Northern Charlotte: Moderate (M-Tu), Low (W), Very Low (Th)**

**Northern Charlotte, upper harbor, bay regions: Moderate (M-Th)**

**Northern Charlotte, bay regions: Moderate (M-Th)**

**Southern Charlotte: Moderate (M, Tu), Low (W), Very Low (Th)**

**Southern Charlotte, bay regions: Moderate (M-Th)**

**Northern Lee: Moderate (M, Tu, Th), Low (W)**

**Northern Lee, bay regions: Moderate (M, Tu, Th), Low (W)**

**Central Lee: Moderate (M, Tu, Th), Low (W)**

**Central Lee, bay regions: Moderate (M, Tu, Th), Low (W)**

**Southern Lee: Very Low (M-Th)**

**Northern Collier: Very Low (M-Th)**

**Central Collier: Very Low (M-Th)**

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

Check [http://tidesandcurrents.noaa.gov/hab/beach\\_conditions.html](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](http://tidesandcurrents.noaa.gov/hab/hab_health_info.html). Over the last few days, respiratory irritation has been reported from Manatee and Sarasota counties. Dead fish have been reported from Sarasota and Lee counties.

## Analysis

New samples collected along-and offshore the coast of southwest Florida continue to indicate up to 'high' concentrations of *Karenia brevis* are present from Pinellas to Monroe counties, with the highest concentrations located in the bay regions of Sarasota and Charlotte counties (FWRI, MML, SCHD, CCENRD; 11/29-12/2) New samples collected alongshore southern Lee and Collier counties indicate *K. brevis* concentrations have decreased to 'not present' and 'background' where sampling on 11/21 and 11/22 detected up to 'low a' *K. brevis* concentrations (FWRI, CCENRD; 11/30-12/2). Sampling offshore the lower Florida Keys continues to indicate *K. brevis* is not present (MML; 12/1). Detailed sample information and a summary of impacts can be obtained through FWC

Fish and Wildlife Research Institute at: <http://myfwc.com/redtidestatus>. Slight to moderate respiratory irritation has been reported from several locations in Sarasota and Manatee counties (MML; 12/1-12/4). Dead fish have been reported from Sarasota and Lee counties. (FWRI, MML; 12/1-12/4).

In recent ensemble imagery (MODIS Aqua, 12/4), patches of elevated to very high (2 to >20µg/L) chlorophyll with the optical characteristics of *K. brevis* are visible alongshore southwest Florida from southern Manatee to northern Lee County.

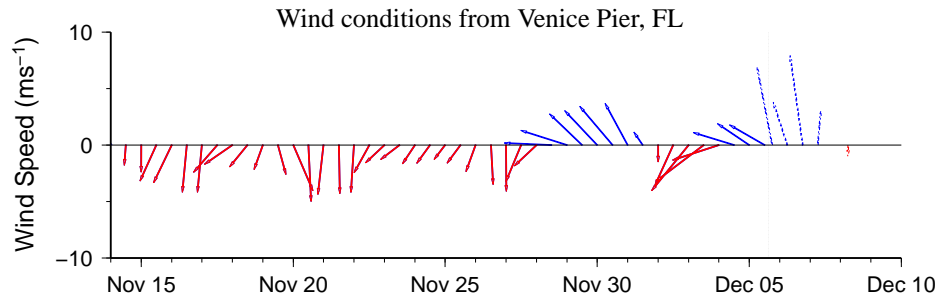
Forecasted winds Monday through Thursday (12/5-12/8) may increase the potential for bloom intensification at the coast alongshore southern Lee and Collier counties.

Davis, Yang

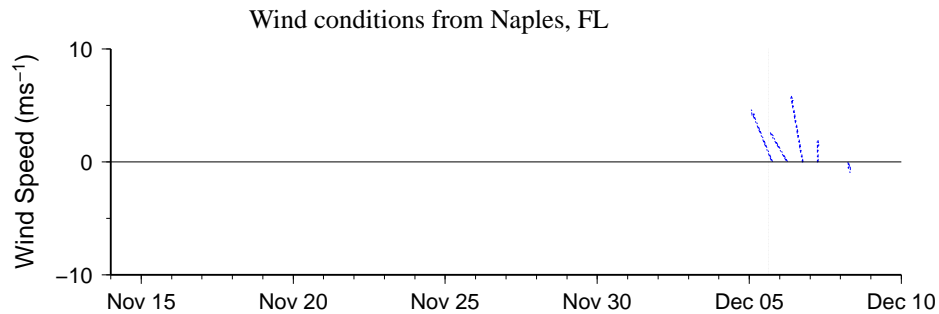
### Wind Analysis

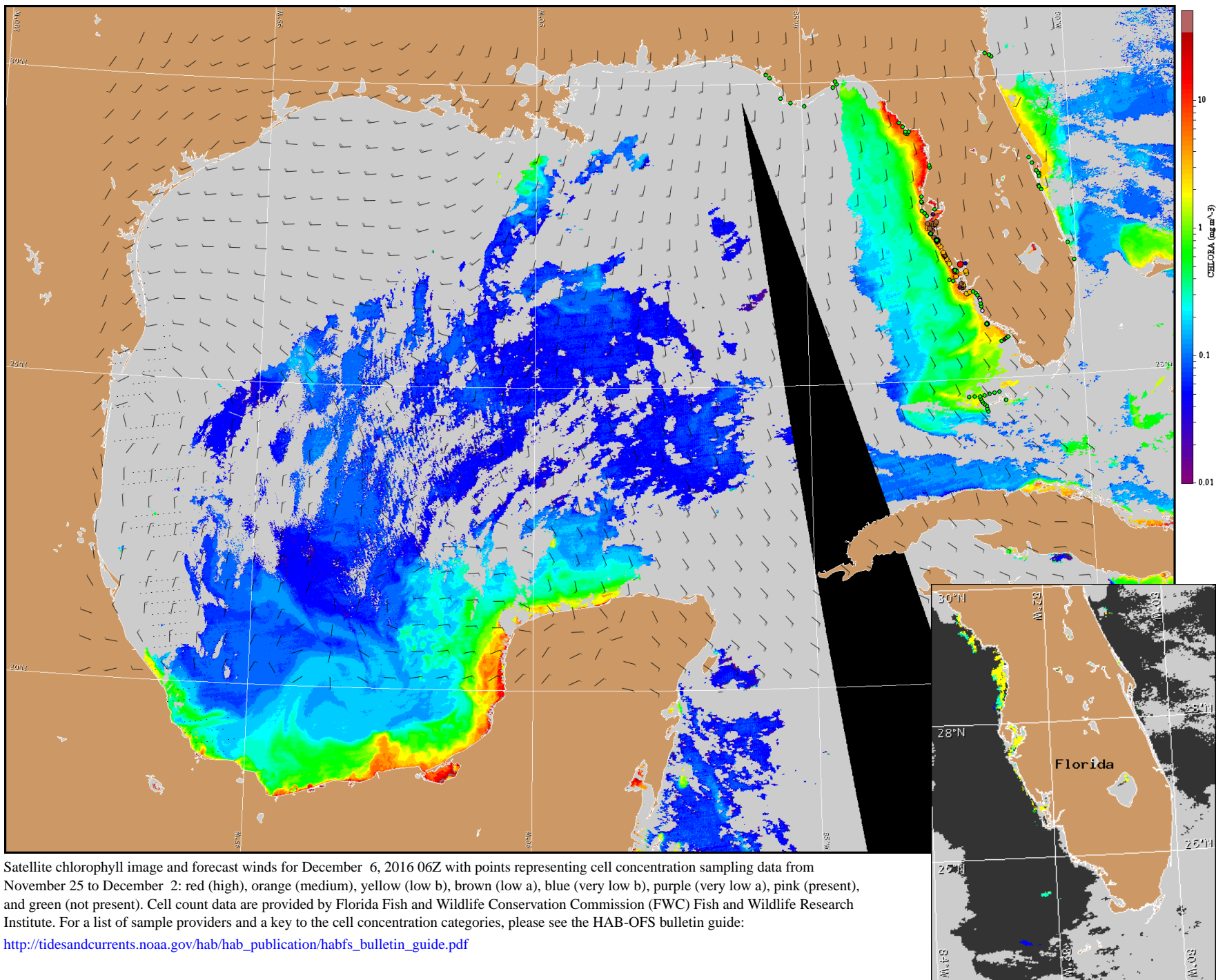
**Englewood to Tarpon Springs (Venice):** Southeast to south winds (5-15kn, 3-8m/s) today. Southwest winds (15kn, 8m/s) Tuesday becoming West to northwest winds (10kn, 5m/s) Tuesday night. North to northwest winds (5-15kn) Wednesday through Thursday.

**Chokoloskee to Bonita Beach:** Southeasterly winds (10-15kn, 5-8m/s) today. South southwest to west winds (5-15kn) Tuesday. Northeasterly winds (5-10kn, 3-5m/s) Wednesday. Variable winds (5-15kn) Thursday.



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 6, 2016 06Z with points representing cell concentration sampling data from November 25 to December 2: 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).