



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

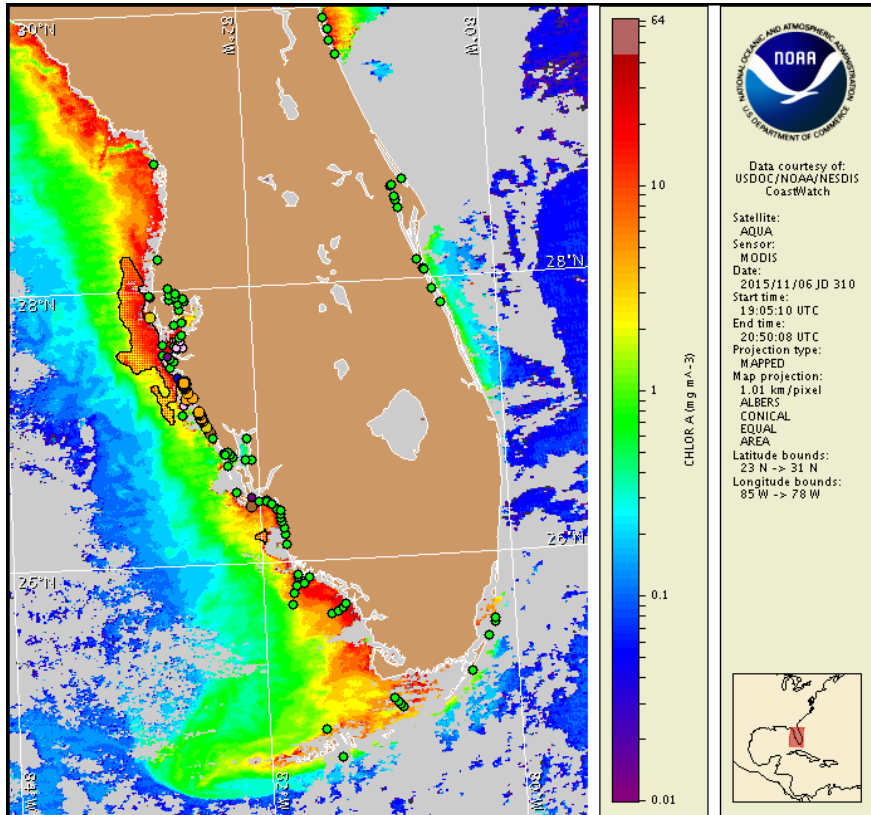
Monday, 09 November 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, November 5, 2015



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from October 30 to November 6: 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](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 Monday, November 9 through Thursday, November 12 is listed below:

### County Region: Forecast (Duration)

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

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

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

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

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

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

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

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

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

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

**Central 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](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). Reports of respiratory irritation and dead fish have been received from alongshore southern Manatee and Sarasota County.

## Analysis

Recent samples collected along- and offshore southwest Florida from Pinellas County to the Florida Keys indicate background to 'high' *Karenia brevis* concentrations from southern Pinellas to central Lee County, with the highest concentrations observed in Sarasota Bay (FWRI, SCHD, MML; 11/1-11/6). In Lee County, sampling last week indicated *K. brevis* concentrations increased to 'low a' from not present at Tarpon Beach Rd on Sanibel Island and a 'very low a' sample was also collected in the central Lee bay region while all other samples collected alongshore and in the bay regions of Lee County indicated not present to background concentrations of *K. brevis* (FWRI; 11/2-11/4). Respiratory irritation and fish kills were reported in Sarasota and Manatee counties over the past few days (MML; 11/5-11/9). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at:

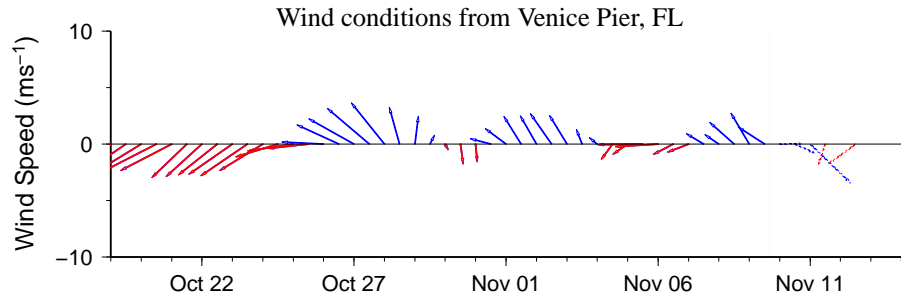
<http://myfwc.com/redtidestatus>.

In recent ensemble imagery (MODIS Aqua, 11/6), patches of elevated to very high chlorophyll (2 to >20  $\mu\text{g/L}$ ) with the optical characteristics of *K. brevis* are visible alongshore and up to 15 miles offshore southwest Florida from Pinellas to northern Charlotte County and from central Lee to central Collier County.

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

Davis, Yang

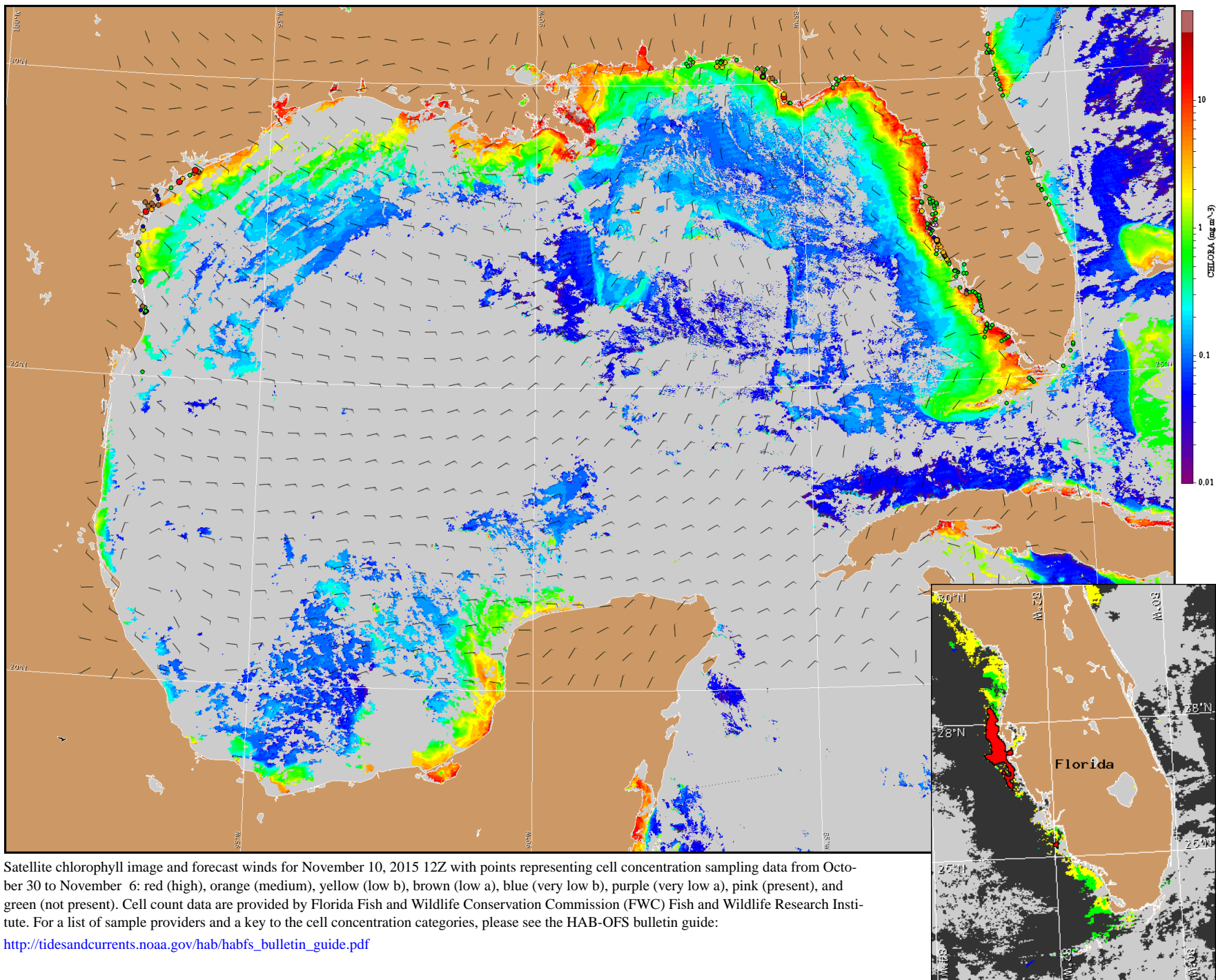
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Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical 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):** South to southwest winds (10-15kn, 5-8m/s) today. West to northwest winds (10kn, 5m/s) Tuesday becoming north winds (10-15kn) Tuesday night. North to northeast winds (10kn) Wednesday becoming east winds overnight. East to north winds (5-10kn, 3-5m/s) Thursday.



Satellite chlorophyll image and forecast winds for November 10, 2015 12Z with points representing cell concentration sampling data from October 30 to November 6: 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).