

# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

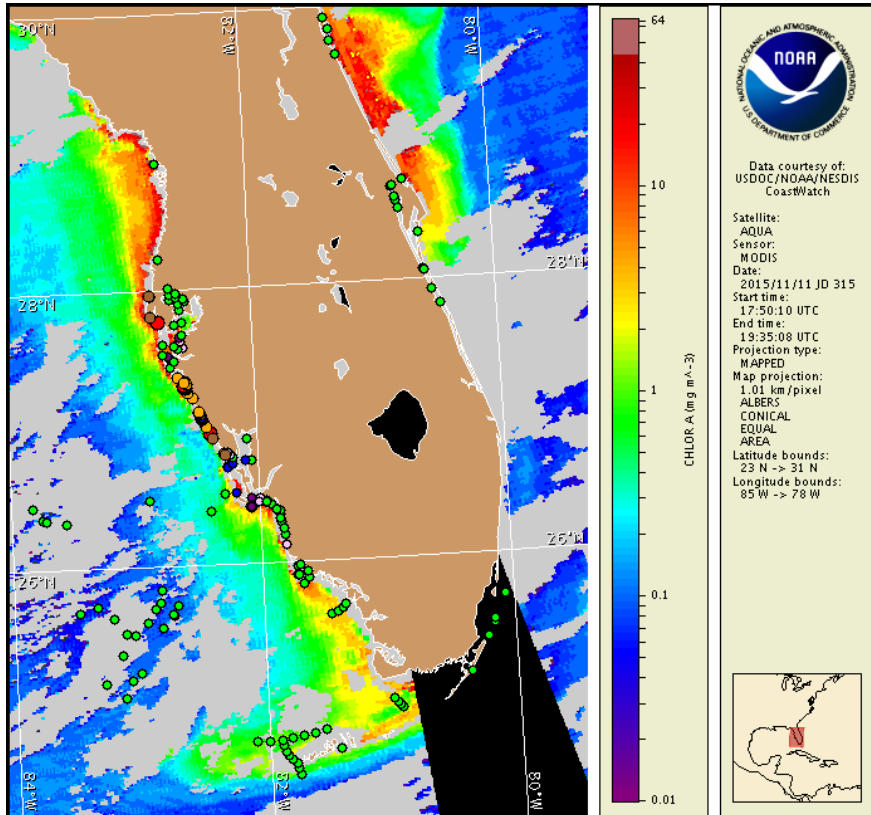
Thursday, 12 November 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, November 9, 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 2 to 11: 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 Thursday, November 12 through Monday, November 16 is listed below:

### County Region: Forecast (Duration)

**Northern Pinellas:** Low (Th), Very Low (F-M)

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

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

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

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

**Northern Sarasota:** Moderate (Th), Low (F-M)

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

**Southern Sarasota:** Moderate (Th), Low (F-M)

**Northern Charlotte:** Low (Th), Very Low (F-M)

**Southern Charlotte:** Low (Th), Very Low (F-M)

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

**Northern Lee:** Very Low (Th), None (F-M)

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

**Central Lee:** Low (Th), Very Low (F-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](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 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 northern Pinellas to northern Collier County (FWRI, SCHD, MML; 11/6-11/11). Samples collected in the past several days indicate *K. brevis* concentrations have increased to 'high' from 'not present' in the bay regions of southern Pinellas County and to 'high' from 'medium' alongshore Sarasota County (FWRI, SCHD; 11/9). Sampling also indicates that *K. brevis* concentrations have extended north into the coastal region of northern Pinellas County with a 'low a' sample collected from the Clearwater Pier on 11/9 where previous sampling indicated that that *K. brevis* was not present (FWRI). Respiratory irritation and fish kills continue to be reported in Sarasota and Manatee counties over the past few days (MML; 11/9-11/12). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at:

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

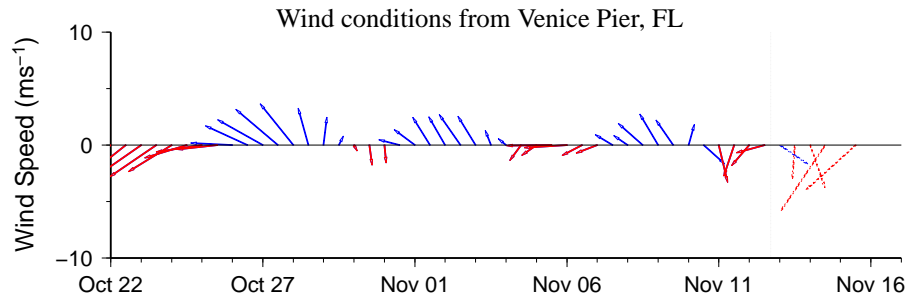
## Wind Analysis

**Englewood to Tarpon Springs (Venice):** East winds (5-10kn, 3-5m/s) today becoming northwest winds in the afternoon. North to northeast winds (10-20kn, 5-10m/s) tonight through Saturday. East winds (15kn, 8m/s) Sunday through Monday.

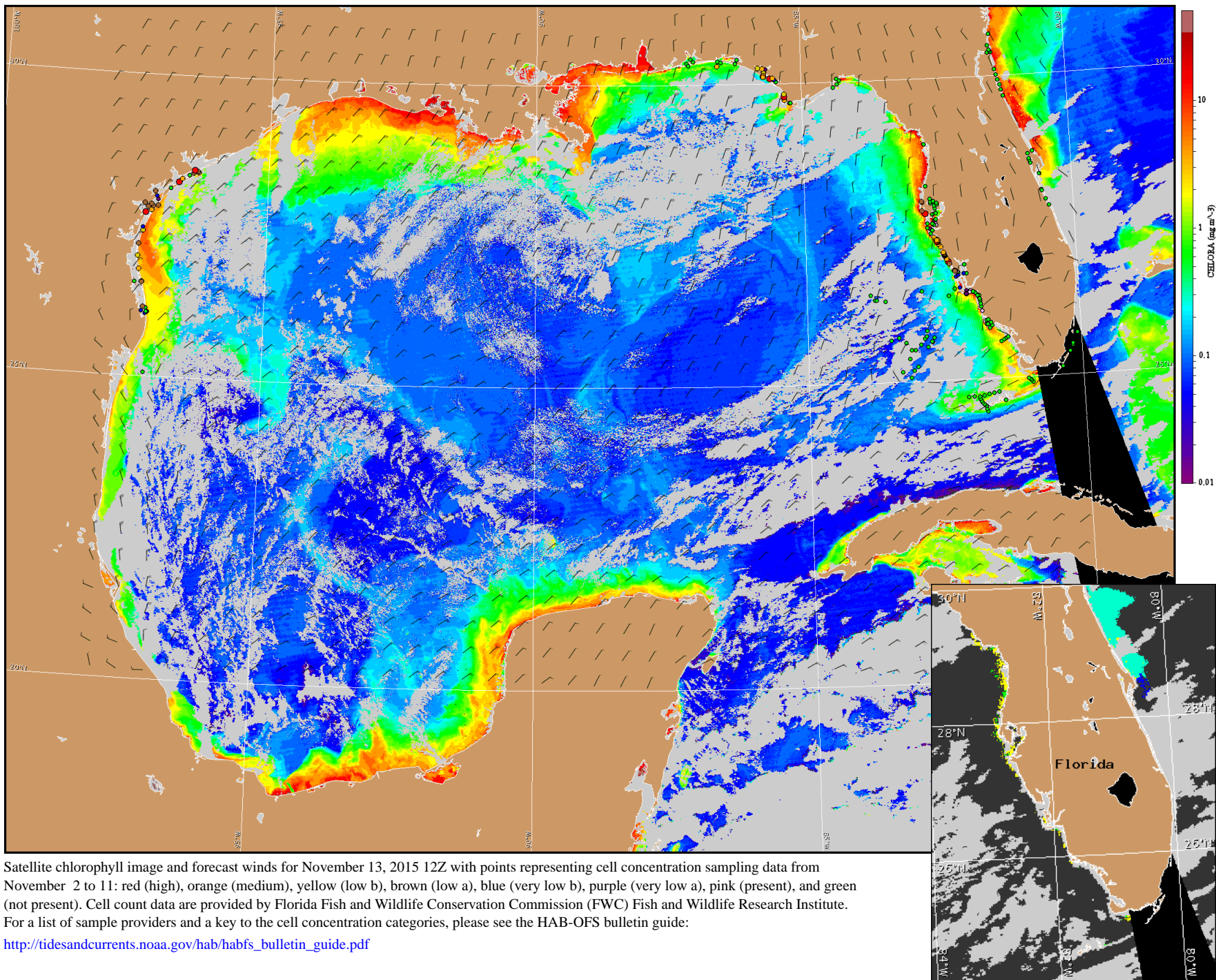
In recent ensemble imagery (MODIS Aqua, 11/11), patches of elevated to very high chlorophyll (2 to  $>20\mu\text{g/L}$ ) with the optical characteristics of *K. brevis* are visible along-shore, and up to 5 miles offshore from Pinellas to central Lee County.

North to east winds Friday through Monday will minimize the potential for transport of *K. brevis* concentrations at the coast of southwest Florida. Offshore winds Friday through Monday will help to reduce the potential for respiratory irritation at the coast but may elevate the potential for respiratory irritation in the bay regions of Pinellas, Manatee, and Sarasota counties.

Davis, Yang



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 November 13, 2015 12Z with points representing cell concentration sampling data from November 2 to 11: 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)

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