



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

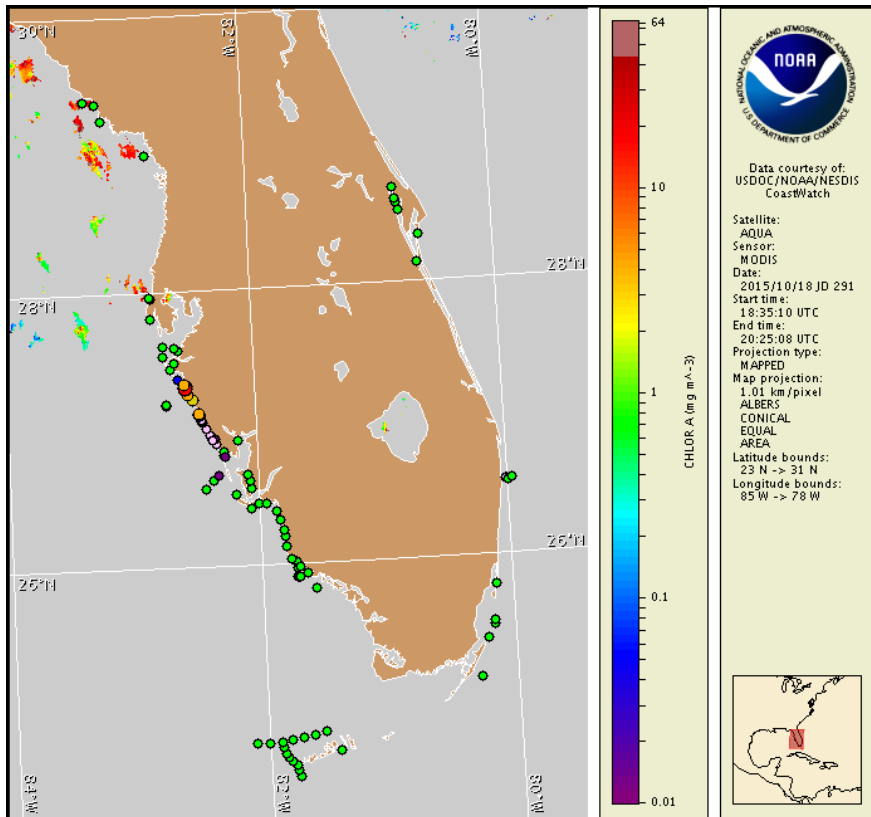
Monday, 19 October 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, October 15, 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 9 to 18: 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, October 19 through Thursday, October 22 is listed below:

**County Region: Forecast (Duration)**

**Northern Sarasota: Moderate (M-Th)**

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

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

**Southern Charlotte, 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, dead fish, and discolored water have been received from alongshore Sarasota County. Dead fish have also been reported alongshore Charlotte County.

## Analysis

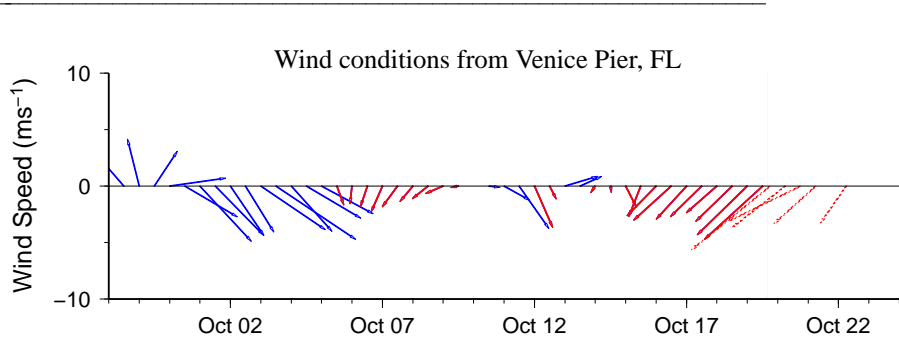
Recent samples collected alongshore southwest Florida from Pinellas to Collier counties indicate 'background' to 'high' *Karenia brevis* concentrations from northern Sarasota to southern Charlotte counties, with the highest concentrations present alongshore northern Sarasota County from Lido Key to Venice Jetty and within Sarasota Bay near Mote Marine Lab (FWRI, SCHD, CCENRD; 10/8-14). Samples collected on 10/12 indicate that *K. brevis* concentrations have decreased to 'not present' along Manatee County (FWRI). One sample collected offshore Lee County indicated 'very low a' *K. brevis* concentrations 4.3 miles west of Cayo Costa (FWRI; 10/13). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: <http://myfwc.com/redtidestatus>. Slight respiratory irritation has been reported at Casey Key Beach, Nokomis, and Venice North Jetty in Sarasota County (FWRI, MML; 10/15, 10/18); dead fish have been reported at Casey Key, Siesta, and North Jetty beaches in Sarasota County and Englewood Beach in Charlotte County (MML, FWRI; 10/15, 10/17).

Recent MODIS aqua imagery (10/18, shown left) is completely obscured by clouds along the coast of southwest Florida, preventing analysis. In ensemble imagery from last week (MODIS Aqua, 10/14), patches of elevated to very high chlorophyll (2 to >20  $\mu\text{g/L}$ ) with the optical characteristics of *K. brevis* were visible along- and offshore the coast from Pinellas to Collier counties.

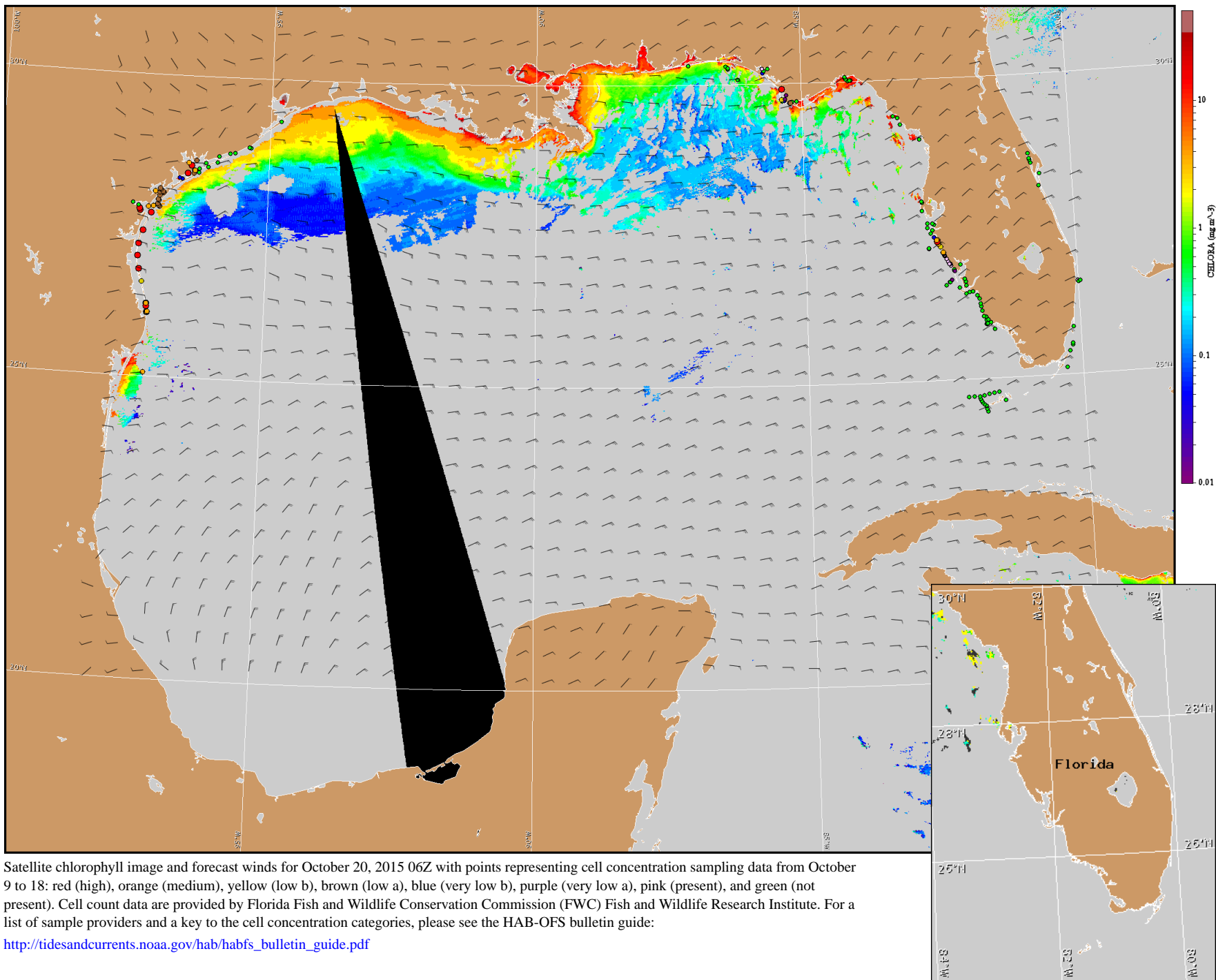
Forecasted conditions over the next several days will minimize the transport of surface *K. brevis* concentrations onshore southwest Florida. Observed winds over the past several days may have promoted intensification of *K. brevis* concentrations at the coast. ~Derner, Keeney

## Wind Analysis

**Englewood to Tarpon Springs (Venice):** Northeast winds (15-20kn, 8-10m/s) today through Wednesday. East winds (15kn, 8m/s) Wednesday night becoming northeast (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 October 20, 2015 06Z with points representing cell concentration sampling data from October 9 to 18: 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).