



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

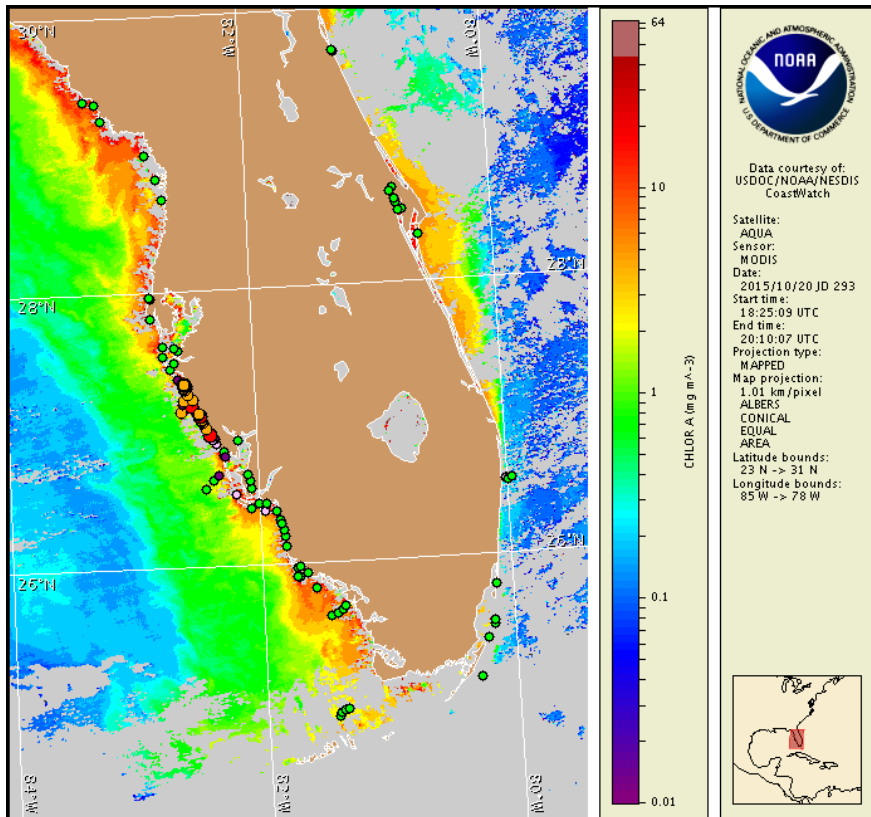
Thursday, 22 October 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, October 19, 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 12 to 21: 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, October 22 through Monday, October 26 is listed below:

County Region: Forecast (Duration)

Northern Sarasota: Low (Th-M)

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

Southern Sarasota: Low (Th-M)

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

Southern Charlotte, 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>

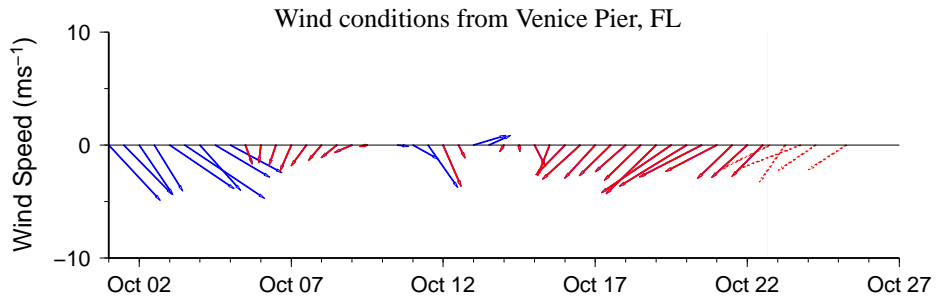
Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Health information, from the Florida Department of Health and other agencies, is available at http://tidesandcurrents.noaa.gov/hab/hab_health_info.html. Reports of respiratory irritation have been received from alongshore Sarasota County.

Analysis

Recent samples collected along- and offshore 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 Sarasota County from Lido Key to Blind Pass Beach and within Sarasota Bay near Mote Marine Lab (FWRI, SCHD, MML; 10/15-20). Recent samples collected alongshore southern Sarasota identified an increase from 'not present' and 'very low' to 'medium' and 'high' *K. brevis* concentrations, with the highest concentrations at Venice and Blind Pass beaches (SCHD; 10/19). Sampling also identified 'medium' to 'high' concentrations offshore northern Sarasota, and continued presence of up to 'high' *K. brevis* concentrations alongshore and in the bay regions of northern Sarasota (FWRI, MML, SCHD; 10/19-21). 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 Nokomis in Sarasota County (MML; 10/19).

Recent MODIS aqua imagery (10/20, shown left) is partially obscured by clouds along- and offshore Sarasota County, limiting analysis in this region. Patches of elevated to high chlorophyll (2-17 $\mu\text{g/L}$) with the optical characteristics of *K. brevis* are visible along- and offshore from northern Sarasota to southern Lee counties.

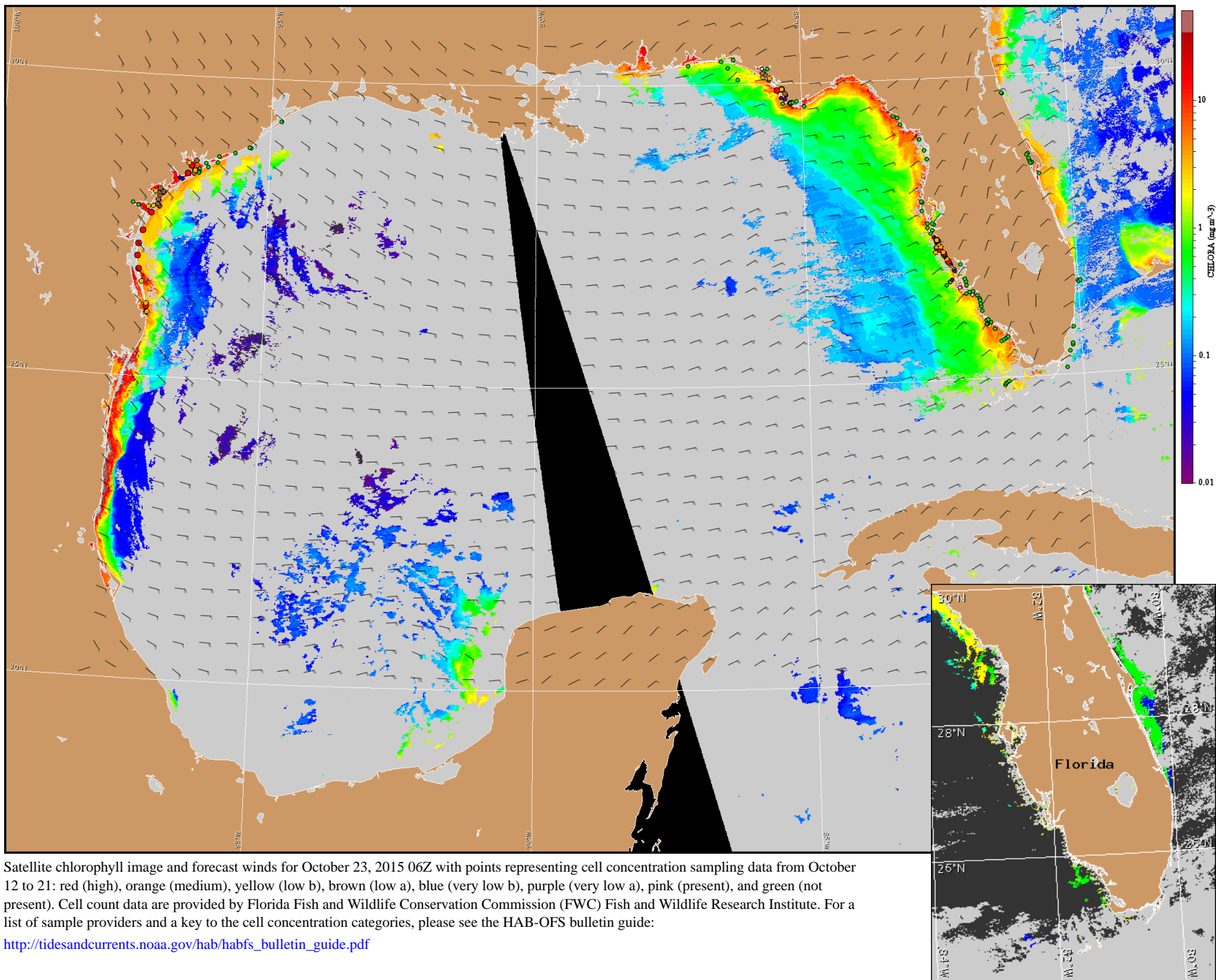
Forecasted winds today through Saturday may promote southward transport of surface *K. brevis* concentrations alongshore southwest Florida. Sustained upwelling favorable winds forecasted through Saturday will decrease the potential for intensification of *K. brevis* concentrations at the coast. ~Derner, Keeney



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): Northeast winds (15kn, 8m/s) today through Saturday. East winds (5-15kn, 3-8m/s) Saturday night through Monday.



Satellite chlorophyll image and forecast winds for October 23, 2015 06Z with points representing cell concentration sampling data from October 12 to 21: 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).