



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

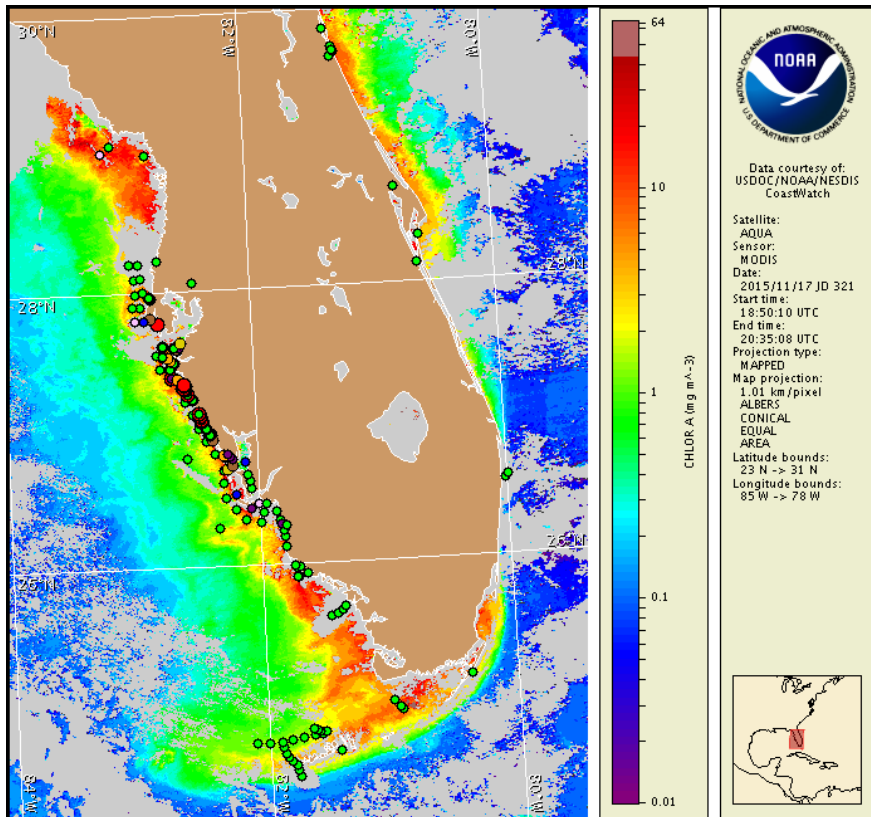
Thursday, 19 November 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, November 16, 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 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/habfbs_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 19 through Monday, November 23 is listed below:

County Region: Forecast (Duration)

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

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

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

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

Pinellas-Northern Manatee, bay regions: Moderate (Th-M)

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

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

Northern Sarasota: High (Th, Sa), Low (F, Su-M)

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

Southern Sarasota: High (Th, Sa), Low (F, Su-M)

Northern Charlotte: Moderate (Th, Sa), Very Low (F, Su-M)

Southern Charlotte: Moderate (Th, Sa), Very Low (F, Su-M)

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

Northern Lee: Moderate (Th), Very Low (F, Su-M), Low (Sa)

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

Central Lee: Very Low (Th-M)

Central Lee, bay regions: 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. Respiratory irritation and fish kills have been reported in Sarasota and Lee counties. Reports of dead fish have been received from Pinellas 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; 11/9-11/18). Sampling on 11/16 continues to indicate that the highest *K. brevis* concentrations are alongshore northern and southern Sarasota County (SCHD). Respiratory irritation and fish kills have been reported in Sarasota County as well as central Lee County, where 'very low b' *K. brevis* concentrations were detected alongshore and were not present in the bay region, additional sampling of this area is recommended (FWRI, MML; 11/19). Reports of dead fish have been received from Pinellas County (FWRI; 11/19). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: <http://myfwc.com/redtidestatus>.

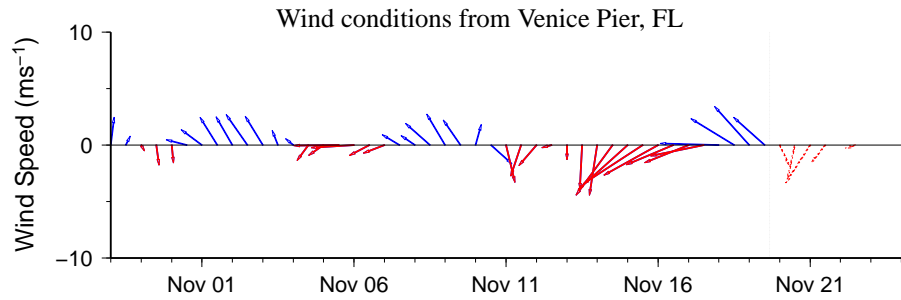
In recent ensemble imagery (MODIS Aqua, 11/17), patches of elevated to very high chlorophyll (2 to >20 $\mu\text{g/L}$) with the optical characteristics of *K. brevis* are visible along-shore from Pinellas to central Collier counties.

North winds Saturday through Monday may promote southerly transport of surface *K. brevis* concentrations alongshore southwest Florida.

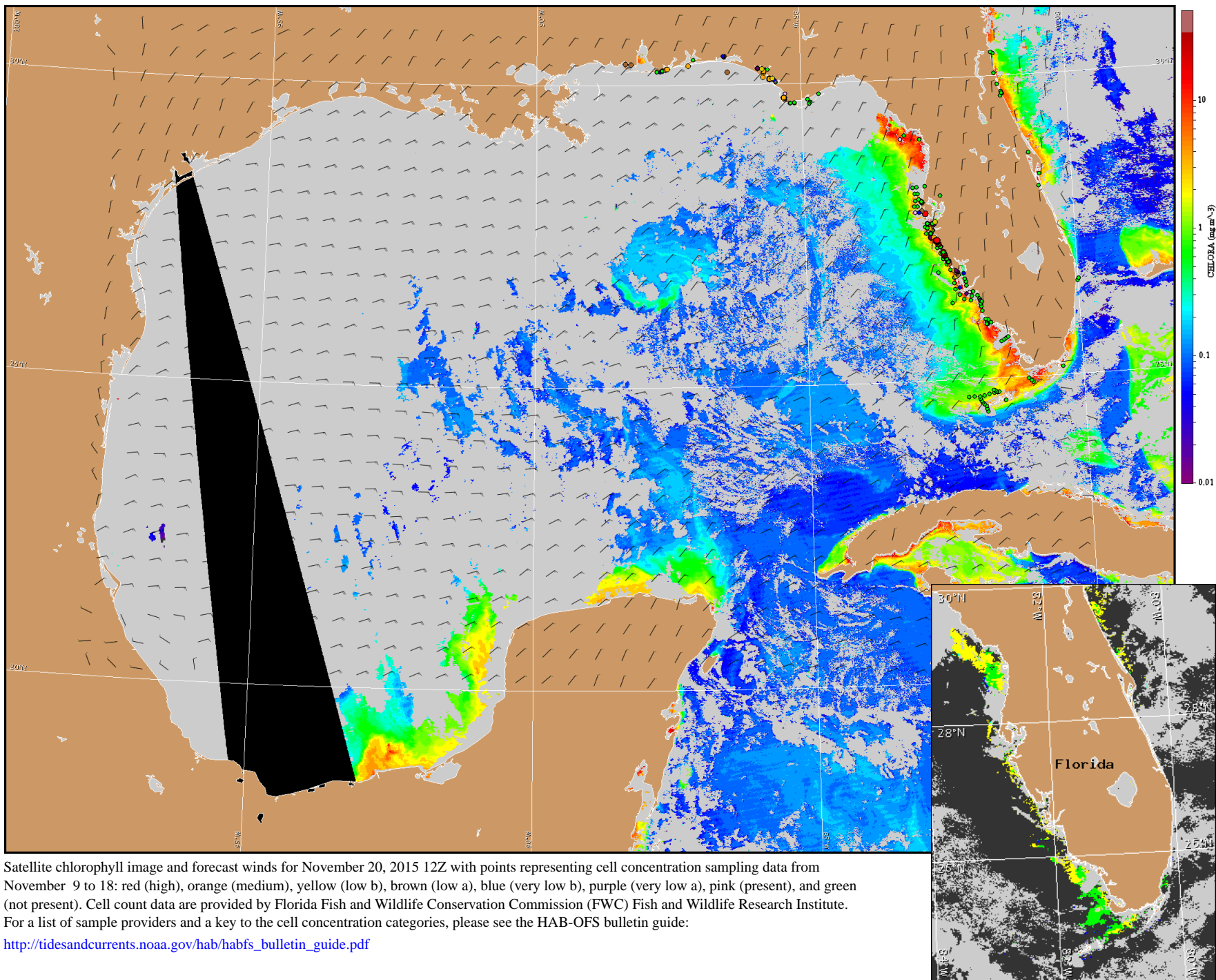
Davis, Yang

Wind Analysis

Englewood to Tarpon Springs (Venice): South winds (5-10kn, 3-5m/s) today becoming northeast winds (5-15kn, 3-8m/s) tonight through Saturday. North winds (10-20kn, 5-10m/s) Saturday night through Monday.



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 20, 2015 12Z with points representing cell concentration sampling data from November 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

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