



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

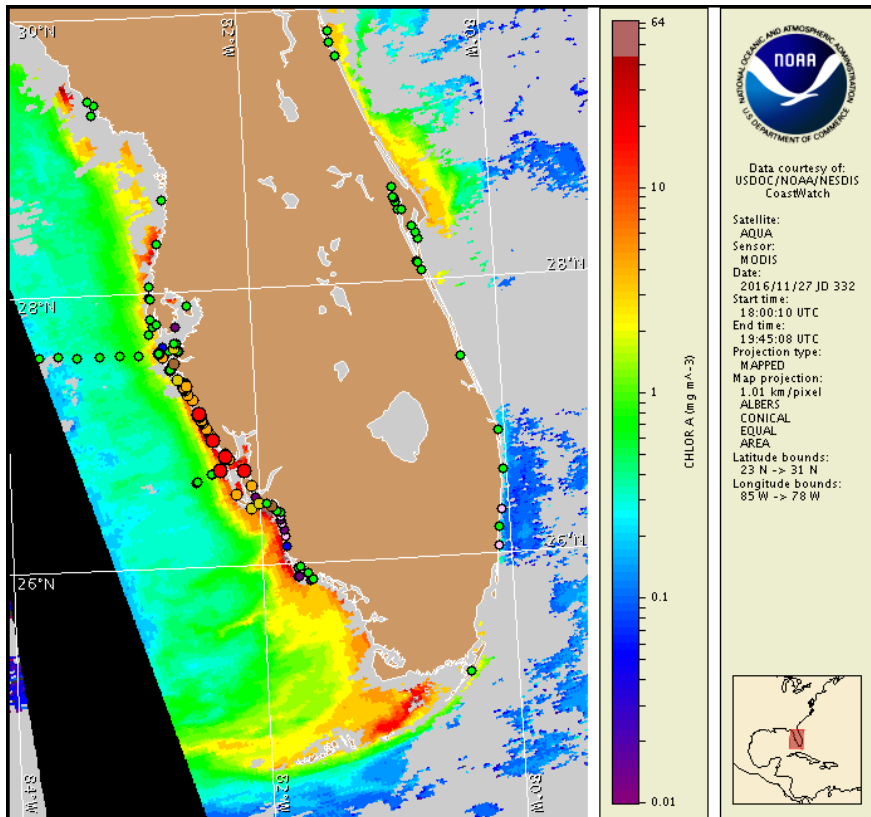
Monday, 28 November 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Wednesday, November 23, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from November 18 to 23: 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/hab_publication/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

Not present to high concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore portions of southwest Florida, and 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 28 through Thursday, December 1 is listed below:

County Region: Forecast (Duration)

Southern Pinellas: Very Low (M-Th)

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

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

Southern Manatee: Low (M-Th)

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

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

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

Southern Sarasota: Moderate (M-Th)

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

Northern Charlotte: Moderate (M-Th)

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

Southern Charlotte: Low (M-Th)

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

Northern Lee: Low (Th), Moderate (Tu-Th)

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

Central Lee: Moderate (M-Th)

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

Southern Lee: Very Low (M-Th)

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

Northern Collier: Very Low (M-Th)

Central Collier: Very Low (M-Th)

Central Collier, bay regions: Very Low (M-Th)

All Other SWFL County Regions: None expected (M-Th)

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. Over the last few days, respiratory irritation has been reported from Sarasota and Charlotte counties. Dead fish have been reported from Sarasota, Charlotte, and Lee counties.

Analysis

Samples collected along-and offshore the coast of southwest Florida continue to indicate up to 'high' concentrations of *Karenia brevis* are present from Pinellas to Monroe counties, with the highest concentrations located in the bay regions of Sarasota, Charlotte, and Lee counties (FWRI, MML, SCHD, CCENRD; 11/18-11/23). 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 from several locations in Sarasota County and from Gasparilla Island Park (South Lighthouse) in Charlotte County. Dead fish have been reported from Sarasota, Charlotte, and

Lee counties. (FWRI, MML; 11/23-11/28).

Recent ensemble imagery (MODIS Aqua, 11/27) indicates the presence of elevated to very high (2 to >20 $\mu\text{g/L}$) chlorophyll with the optical characteristics of *K. brevis* is visible along- and offshore Sarasota to Monroe counties, extending 6-8 miles offshore from central Lee to northern Collier counties.

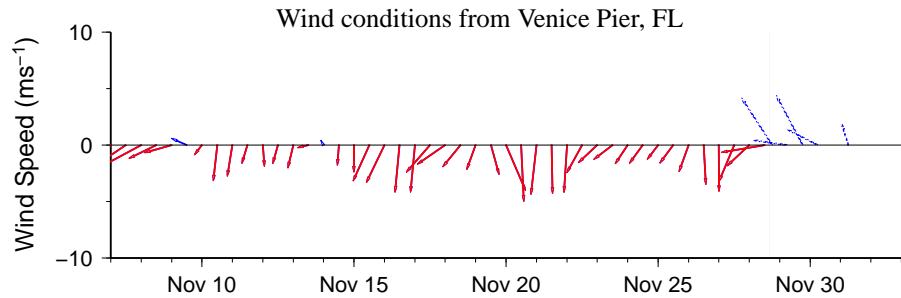
Forecasted winds today through Sunday (11/28-12/1) may promote northerly transport of surface *K. brevis* concentrations alongshore southwest Florida.

Keeney, Urizar

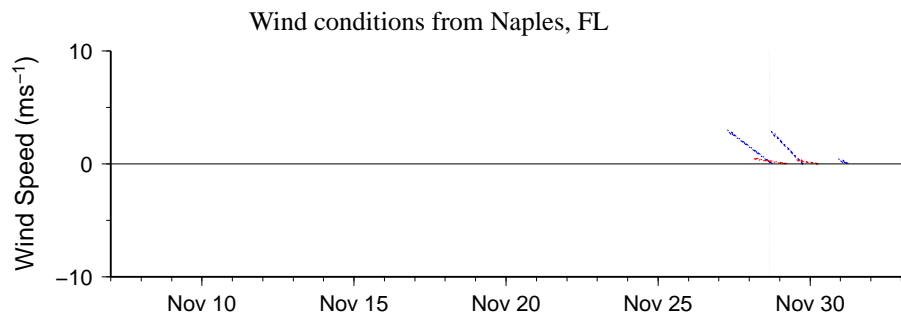
Wind Analysis

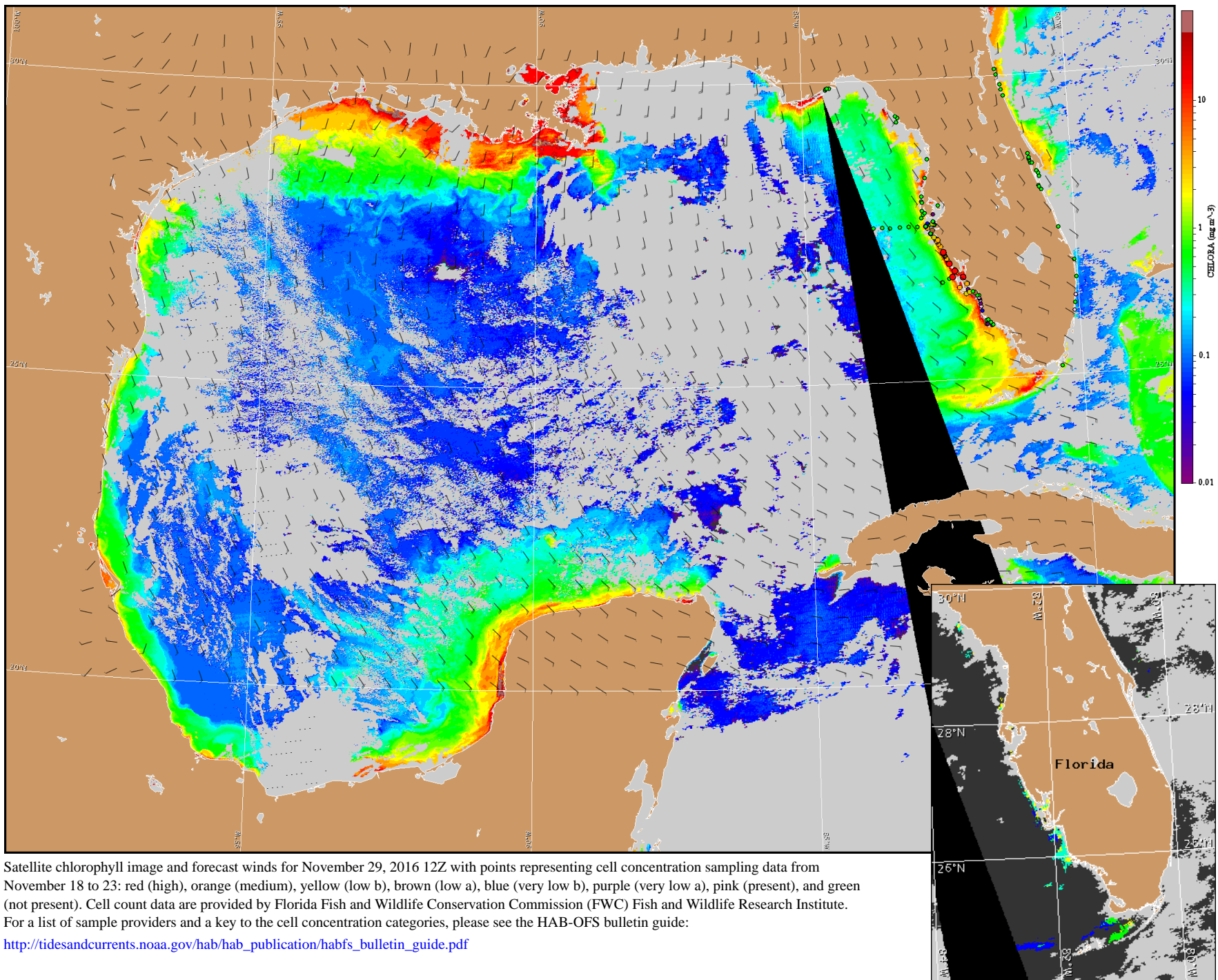
Englewood to Tarpon Springs (Venice): South to southeast winds (10-20 kn, 5-10 m/s) today through Wednesday. Southwest winds (10 kn, 5 m/s) Thursday morning, becoming north winds (10 kn) Thursday evening.

Chokoloskee to Bonita Beach: Southeast to south winds (5-25 kn, 3-13 m/s) today through Wednesday. South winds (5-10 kn, 3-5, m/s) Thursday morning, becoming west winds (5 kn, 3 m/s) Thursday evening.



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 29, 2016 12Z with points representing cell concentration sampling data from November 18 to 23: 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.

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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).