



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

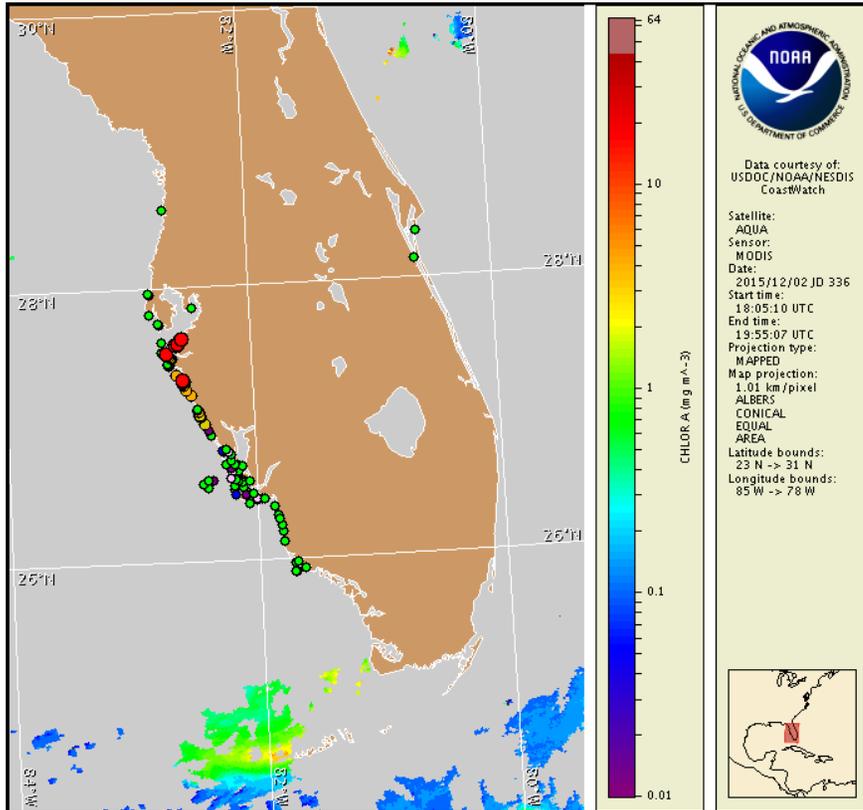
Thursday, 03 December 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, November 30, 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 23 to December 2: 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, December 3 through Monday, December 7 is listed below:

County Region: Forecast (Duration)

Northern Pinellas: Very Low (Th-M)

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

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

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

Southern Manatee: Very Low (Th-M)

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

Northern Sarasota: Very Low (Th-M)

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

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

Southern Charlotte: Very Low (Th-M)

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

Northern Lee, bay regions: Very Low (Th-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 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. Dead fish have been reported in Manatee, Sarasota, Charlotte, and Pinellas Counties.

Analysis

Recent samples collected along- and offshore southwest Florida from Pinellas to Collier Counties indicate background to 'high' *Karenia brevis* concentrations from northern Pinellas to central Lee County (FWRI; 11/23-12/2). 'High' concentrations have been identified in the bay regions of northern Manatee County near Terra Ceia Aquatic Preserve, and offshore Anna Maria Island in the bay regions of southern Manatee County (FWRI; 12/1). 'High' concentrations of *Karenia brevis* are still present in Sarasota Bay in northern Sarasota County (FWRI; 12/2). 'Very low a' and 'Very low b' concentrations have been identified at St. James Point off York Island and Blind Pass, respectively, in the bay regions of Central Lee County (FWRI; 11/30). Reports of dead fish have been received from Manatee County at Manatee Beach, Sarasota and Charlotte Counties, and at Treasure Island in southern Pinellas County. (FWRI; 11/25, MML; 11/30, 12/2). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: <http://myfwc.com/redtidestatus>.

MODIS Aqua ensemble imagery has been completely obscured by clouds along- and offshore over the past several days, preventing chlorophyll analysis. Previous imager from

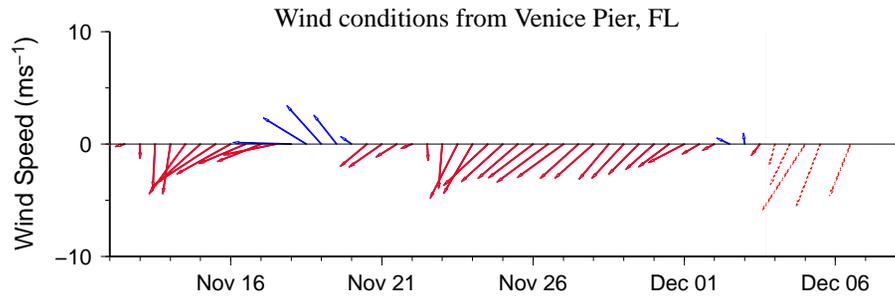
MODIS Aqua, (11/28) identified patches of elevated to very high chlorophyll (2 to >20 $\mu\text{g/L}$) with the optical characteristics of *K. brevis* alongshore, extending up to 19 miles offshore Manatee to northern Sarasota Counties, and alongshore Lee County, extending up to 23 miles offshore.

Offshore winds forecasted today through Monday will minimize the potential for respiratory irritation at the coast of southwest Florida.

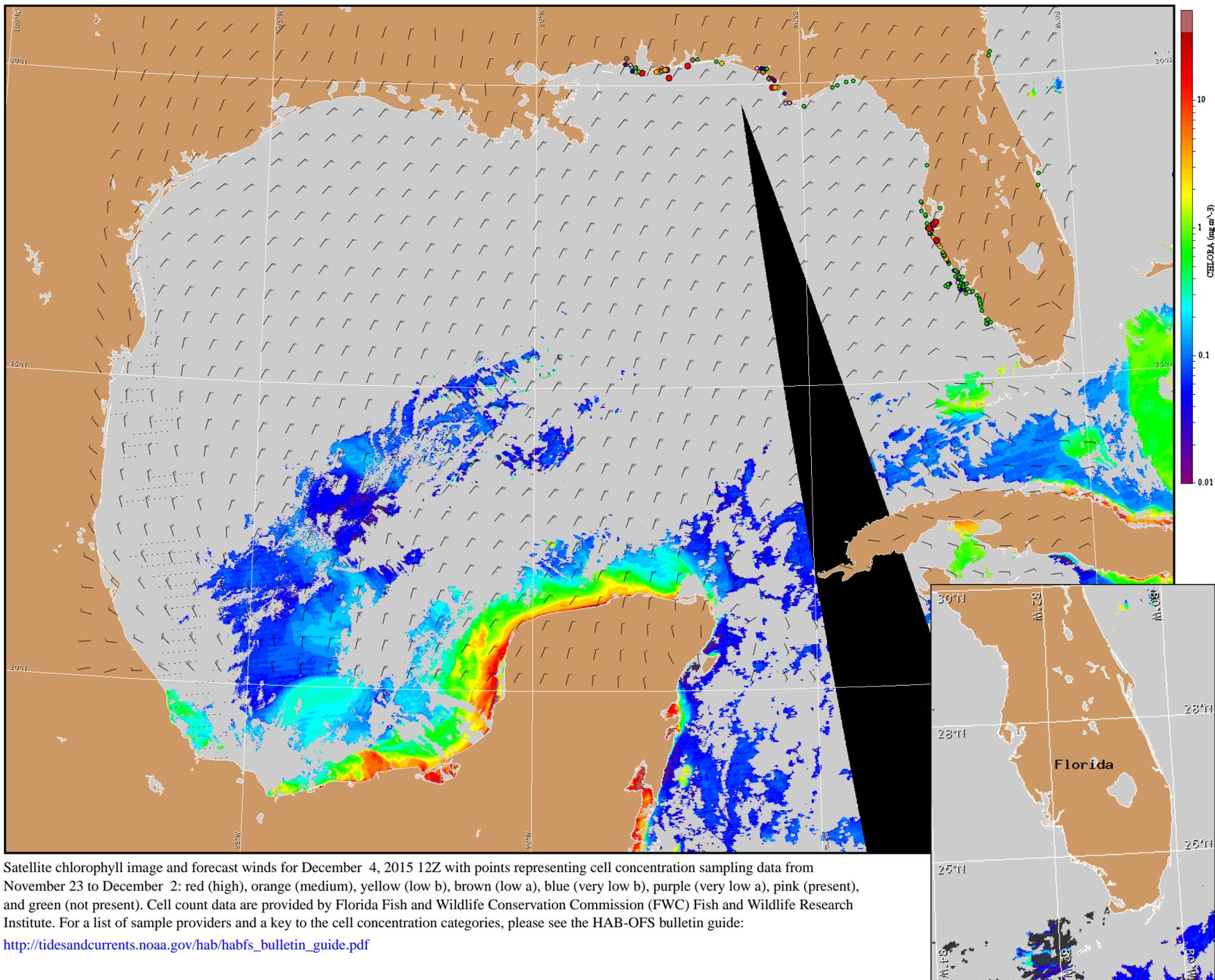
Keeney, Urizar

Wind Analysis

Englewood to Tarpon Springs (Venice): North winds to northeast winds (10-25kn, 5-13m/s).



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 December 4, 2015 12Z with points representing cell concentration sampling data from November 23 to December 2: 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 of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).