



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

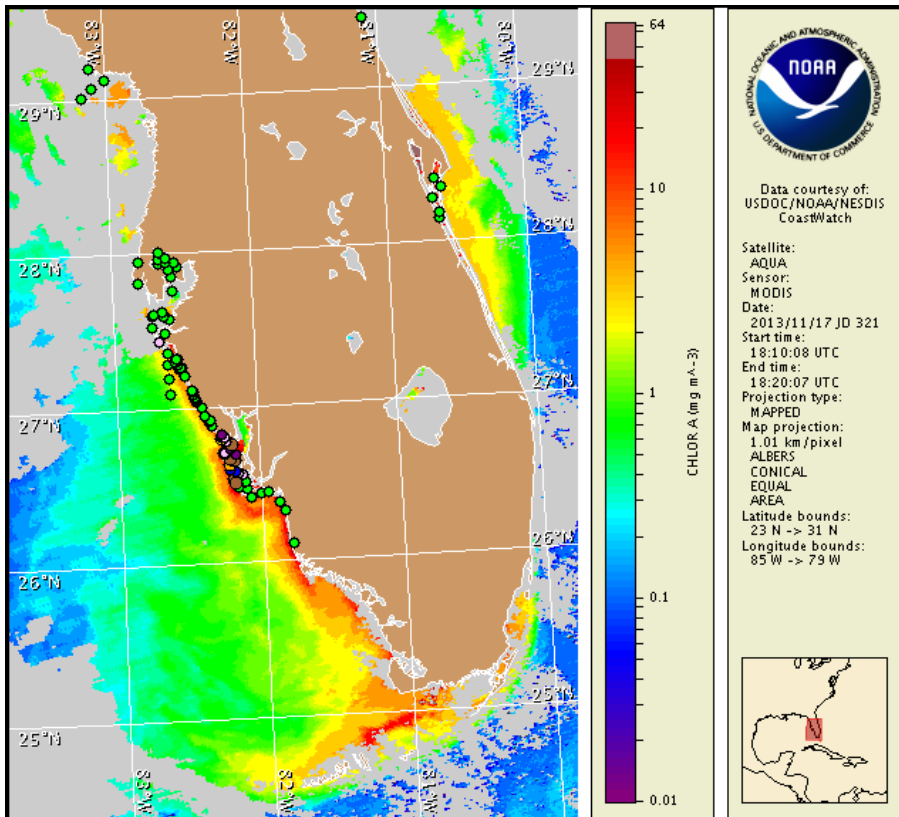
Monday, 18 November 2013

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, November 14, 2013



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from November 8 to 15: 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

Not present to medium 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 18 to Thursday, November 21 is listed below:

County Region: Forecast (Duration)

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

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

All Other SWFL County Regions: None (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 past several days, reports of respiratory irritation have received from the bay regions of northern Lee County.

Analysis

Samples collected from alongshore and offshore southwest Florida over the past 10 days indicate that *Karenia brevis* concentrations range from 'not present' to 'medium' (FWRI, MML, SCHD; 11/7-11/13). Recent samples collected from alongshore central Lee County indicate 'low a' concentrations of *K. brevis* at the South Seas Plantation Entrance and not present elsewhere (FWRI; 11/13). All but one sample collected from Pinellas and Manatee counties indicate not present concentrations of *K. brevis*; one background concentration was identified in Longboat Pass in bay regions of southern Manatee County (FWRI; 11/12). All other samples collected alongshore southwest Florida including the Florida Keys indicated that *K. brevis* is not present (FWRI, MML; 11/7-13). Reports of respiratory irritation have been received from the bay regions of northern Lee County.

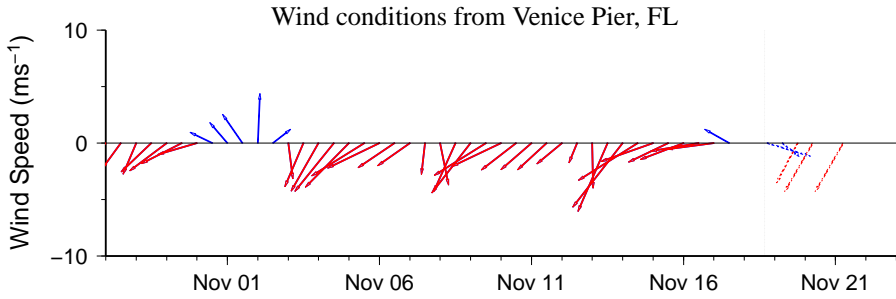
MODIS Aqua imagery (11/17) indicates elevated to very high chlorophyll levels (4 to >20 $\mu\text{g/L}$) alongshore southwest Florida with the highest levels alongshore and offshore central Lee and central Collier counties. Elevated chlorophyll is not necessarily indicative of the presence of *K. brevis* and could also be an artifact of clouds in the imagery. Additional sampling is recommended in these regions to confirm the presence or absence of *K. brevis*. These regions will continue to be monitored as imagery becomes available.

High winds forecasted over the next few days may increase the potential for respiratory irritation in bay regions of Charlotte and Lee counties. Offshore winds forecasted Tuesday and Wednesday may increase the potential for further bloom formation and intensification alongshore southwest Florida.

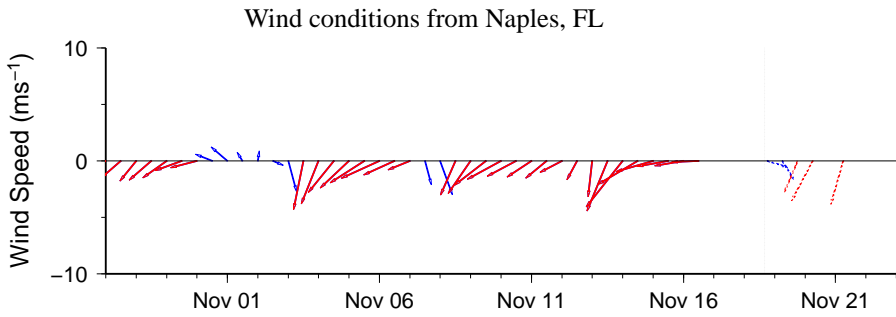
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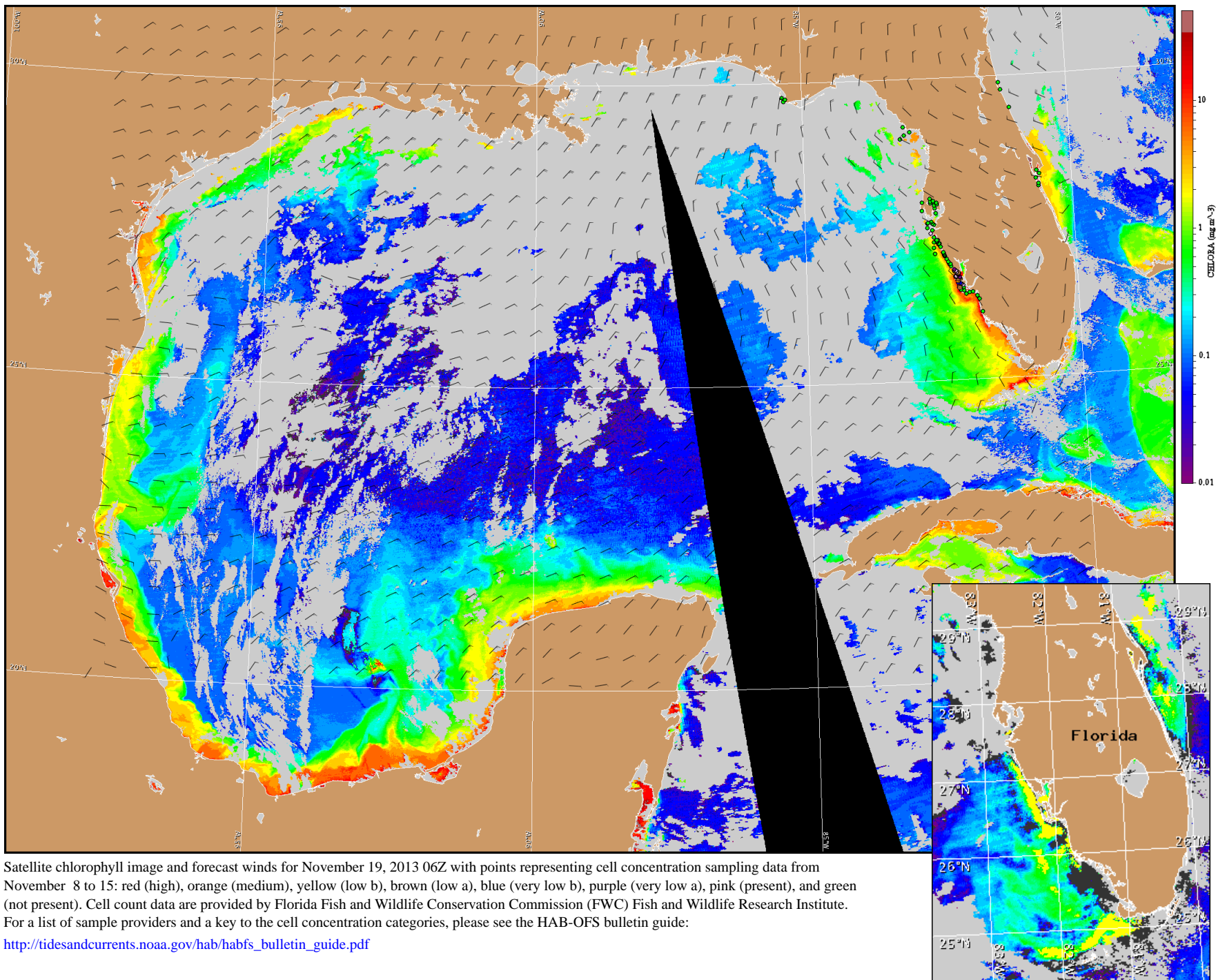
Wind Analysis

SW Florida: Today: Southerly winds (5 kn, 3 m/s) today becoming westerly (10 kn, 5 m/s) in the afternoon. Westerly winds (5 kn) tonight. Northeasterly winds (10-20 kn, 5-10 m/s) Tuesday and Wednesday. Easterly winds (10-20 kn) Wednesday night and 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 November 19, 2013 06Z with points representing cell concentration sampling data from November 8 to 15: 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 of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).