



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

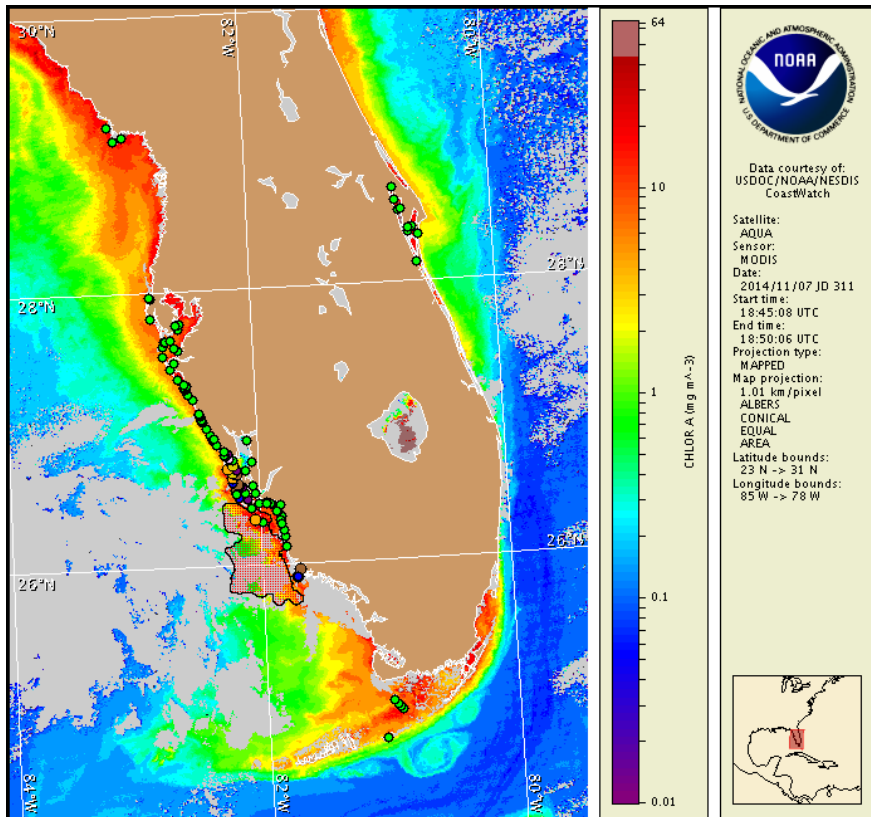
Monday, 10 November 2014

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, November 6, 2014



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from October 31 to November 6: 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 10 to Thursday, November 13 is listed below:

County Region: Forecast (Duration)

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

Northern Lee: Very Low (M-Th)

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

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

Central Collier: Low (M-Th)

Central Collier, bay regions: 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. No reports of respiratory irritation or fish kills have been received over the past few days (FWRI, MML; 11/6-11/10).

Analysis

Not present to medium concentrations of *Karenia brevis* are present along- and offshore portions of southwest Florida from Pinellas to Collier counties (FWRI, MML, SCHD, CCPCPD; 11/3-11/6). Alongshore central Collier County, one 'very low b' *K. brevis* concentrations was identified at South Marco Beach (FWRI, CCPCPD; 11/6). In the bay regions of southern Charlotte County, one 'very low a' *K. brevis* concentration was identified at Boca Grande Pier in the Gasparilla Sound region (FWRI; 11/5). All samples collected elsewhere along- and offshore Pinellas to Collier counties and the Florida Keys indicated that *K. brevis* is not present (FWRI, MML, SCHD, CCPCPD; 11/3-11/6). No reports of respiratory irritation or fish kills have been received over the past few days (FWRI, MML; 11/6-11/10).

In recent MODIS Aqua imagery (11/7, shown left), patches of elevated chlorophyll (2 to 10 $\mu\text{g/L}$) are visible stretching along- and offshore Pinellas to Charlotte counties, with patches of high to very high (10 to $>20 \mu\text{g/L}$) chlorophyll visible along- and offshore Lee to central Collier counties, extending up to 10-20 miles offshore this region.

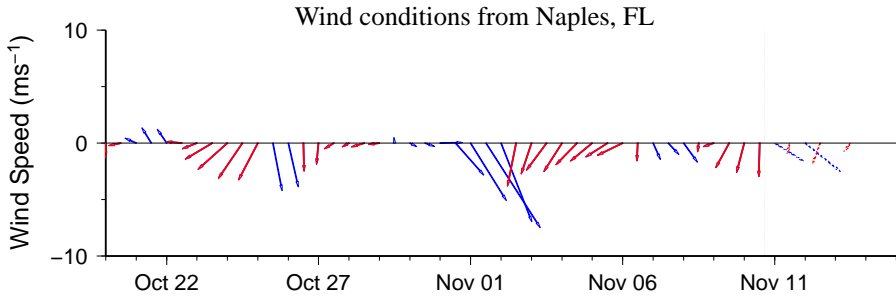
Upwelling favorable winds observed over the past several days may have intensified bloom concentrations at the coast. Forecasted north to northwest winds over the next several days may continue to promote southerly transport of surface *K. brevis* concentrations.

Yang, Davis

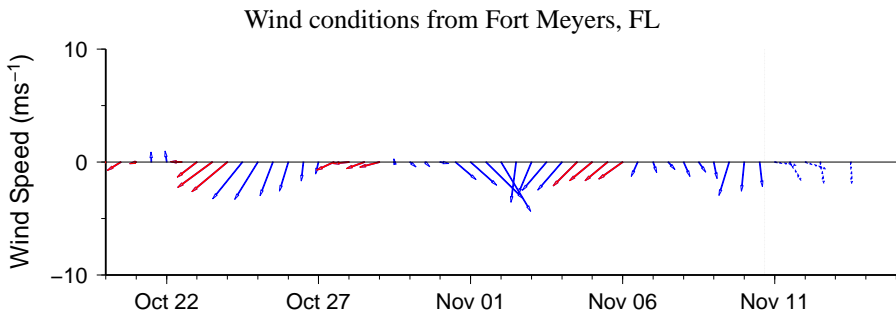
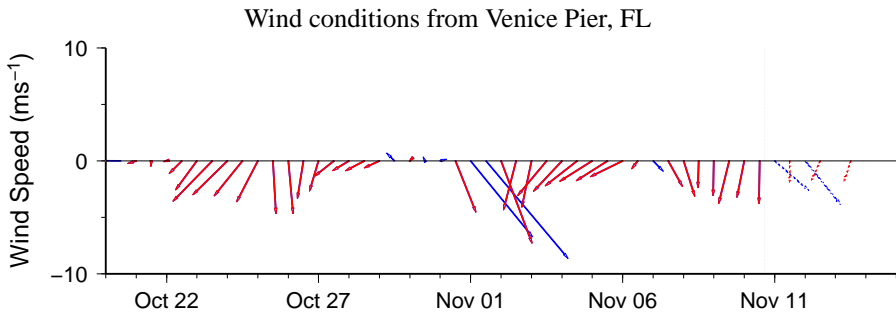
Wind Analysis

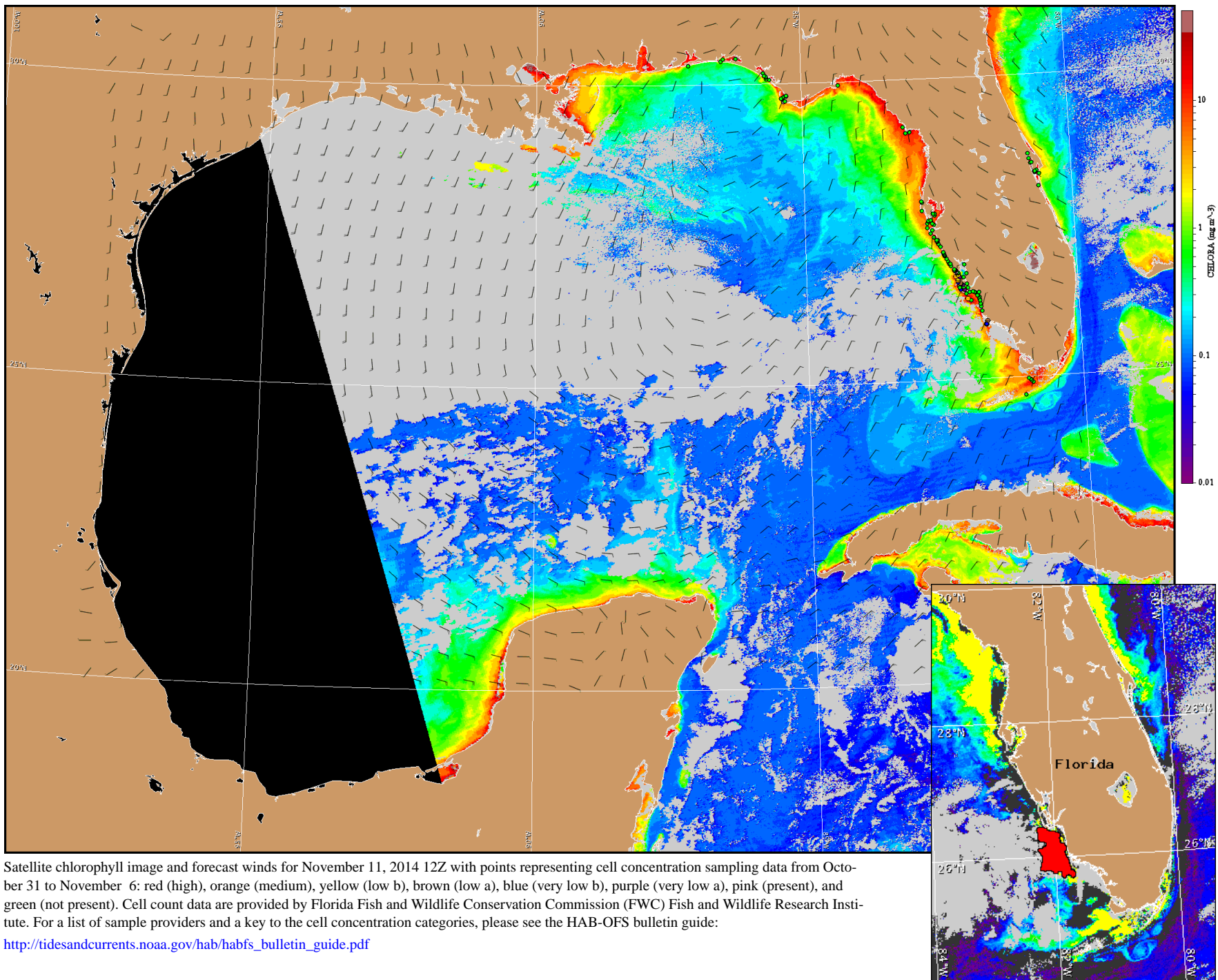
Bonita Beach to Englewood (Fort Meyers): North winds (5-15kn, 3-8m/s) today and Tuesday becoming northwest winds (15kn, 8m/s) Tuesday afternoon. North winds (5-15kn, 3-8m/s) Tuesday night through Friday.

Chokoloskee to Bonita Beach (Naples Buoy): North to north-northwest winds (5-15kn, 3-8m/s) today through Tuesday. North to northeast winds (5-15kn, 3-10m/s) Wednesday through Friday.



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 11, 2014 12Z with points representing cell concentration sampling data from October 31 to November 6: 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).