

Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

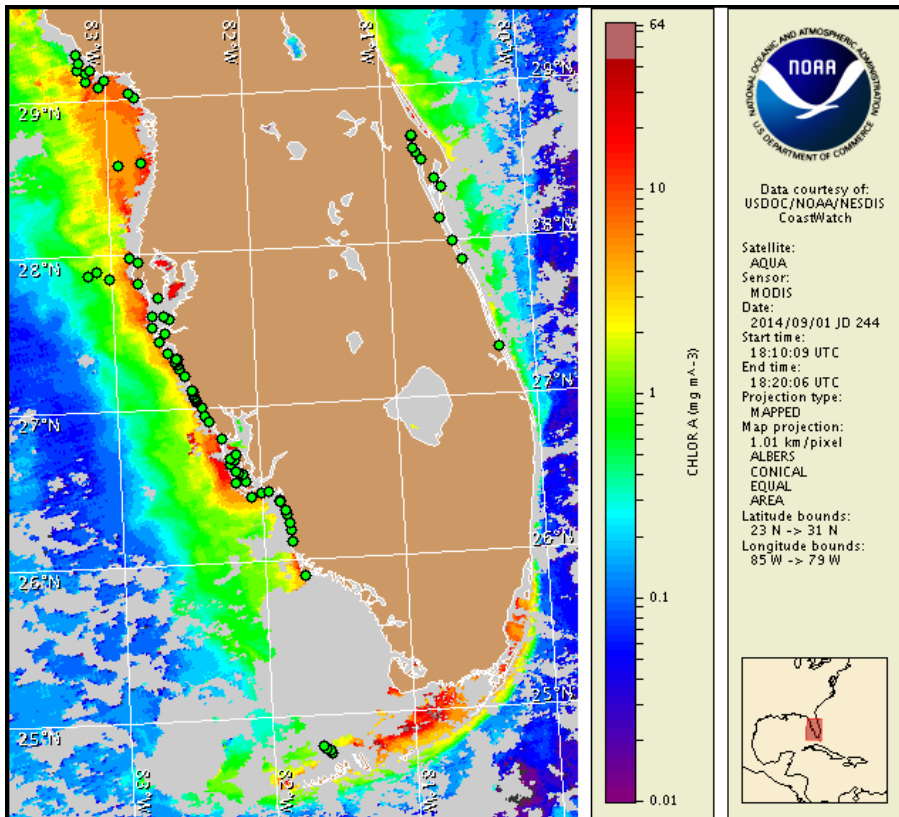
Tuesday, 02 September 2014

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, August 25, 2014



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from August 23 to 29: 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) is not present along the coast of southwest Florida, including the Florida Keys. *K. brevis* ranges from not present to medium concentrations offshore the coast of southwest Florida. No respiratory irritation is expected alongshore west Florida Tuesday, September 2 through Monday, September 8. If field observations confirm *K. brevis* concentrations at the coast, this forecast will be updated prior to September 8.

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Over the past several days, reports of dead fish have been received from offshore Pasco and northern Pinellas counties.

Analysis

Dixie to Pinellas County: Samples collected along- and offshore west Florida over the past ten days indicate that *Karenia brevis* is not present (FWRI; 8/23-8/27). Recent samples have not yet been received from the area offshore west Florida where up to 'medium' concentrations of *K. brevis* were previously identified 21-28 miles offshore Dixie, Hernando and northern Pinellas counties with the highest concentrations identified approximately 28 miles west of Axe Island in Dixie County (FWRI; 8/16-20)

Recent MODIS Aqua imagery (9/1, shown left) along- and offshore west Florida indicates that chlorophyll levels have increased slightly over the past week (~1-3 $\mu\text{g/L}$) beyond 20 miles offshore. A distinct bloom feature has not been visible recently in satellite imagery, most likely due to increasing patchiness and the presence of concentrations below 100,000 cells/L. Elevated to high chlorophyll (3-20 $\mu\text{g/L}$) is visible within 20 miles of the coastline off Dixie to Pinellas counties, however, elevated chlorophyll levels are not uncommon in this region and may not be due to *K. brevis*.

Dead fish, continue to be observed in the sampling area of the bloom and have been reported offshore Pasco and Pinellas counties (FWRI; 8/27-9/1). No reports of respiratory irritation have been received alongshore from Dixie to Pinellas counties in the past week (FWRI, MML; 8/25-9/1).

Variable winds forecasted over the next several days may maintain the location of surface *K. brevis* concentrations.

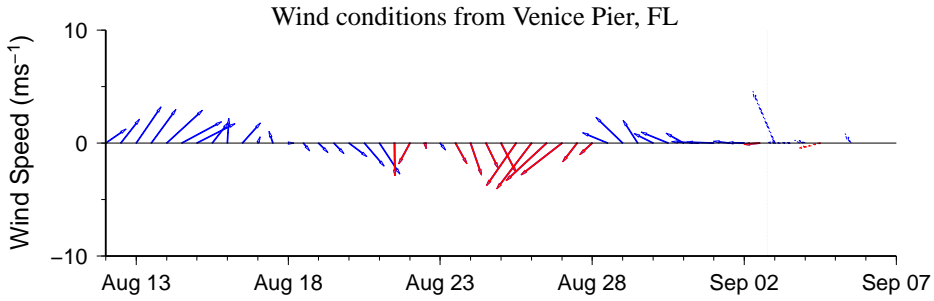
Manatee to Monroe County: Except for one background concentration of *K. brevis* in Lido Beach in Sarasota County, all other samples collected over the past week along- and offshore the coast of southwest Florida indicate that *K. brevis* is not present (FWRI, MML, SCHD, CCPCPD; 8/23-8/28).

In MODIS Aqua imagery from 9/1 (shown left), elevated to high chlorophyll (3-20 $\mu\text{g/L}$) is visible stretching along- and offshore from Manatee to Monroe counties. Elevated chlorophyll along the coast may be the result of various algal species that have been reported throughout the region and not due to *K. brevis*.

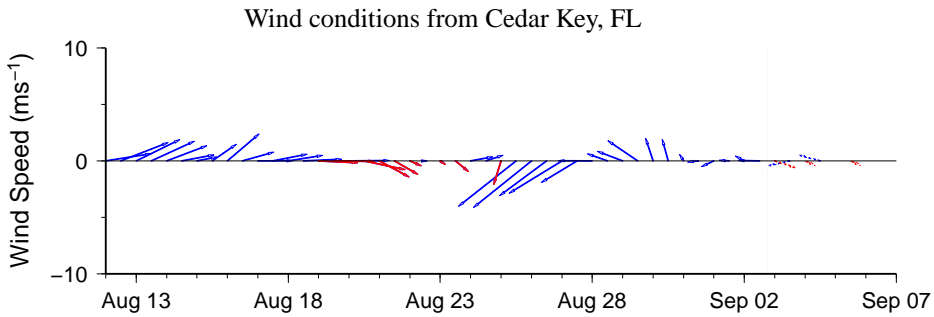
Burrows, Urizar, Kavanaugh

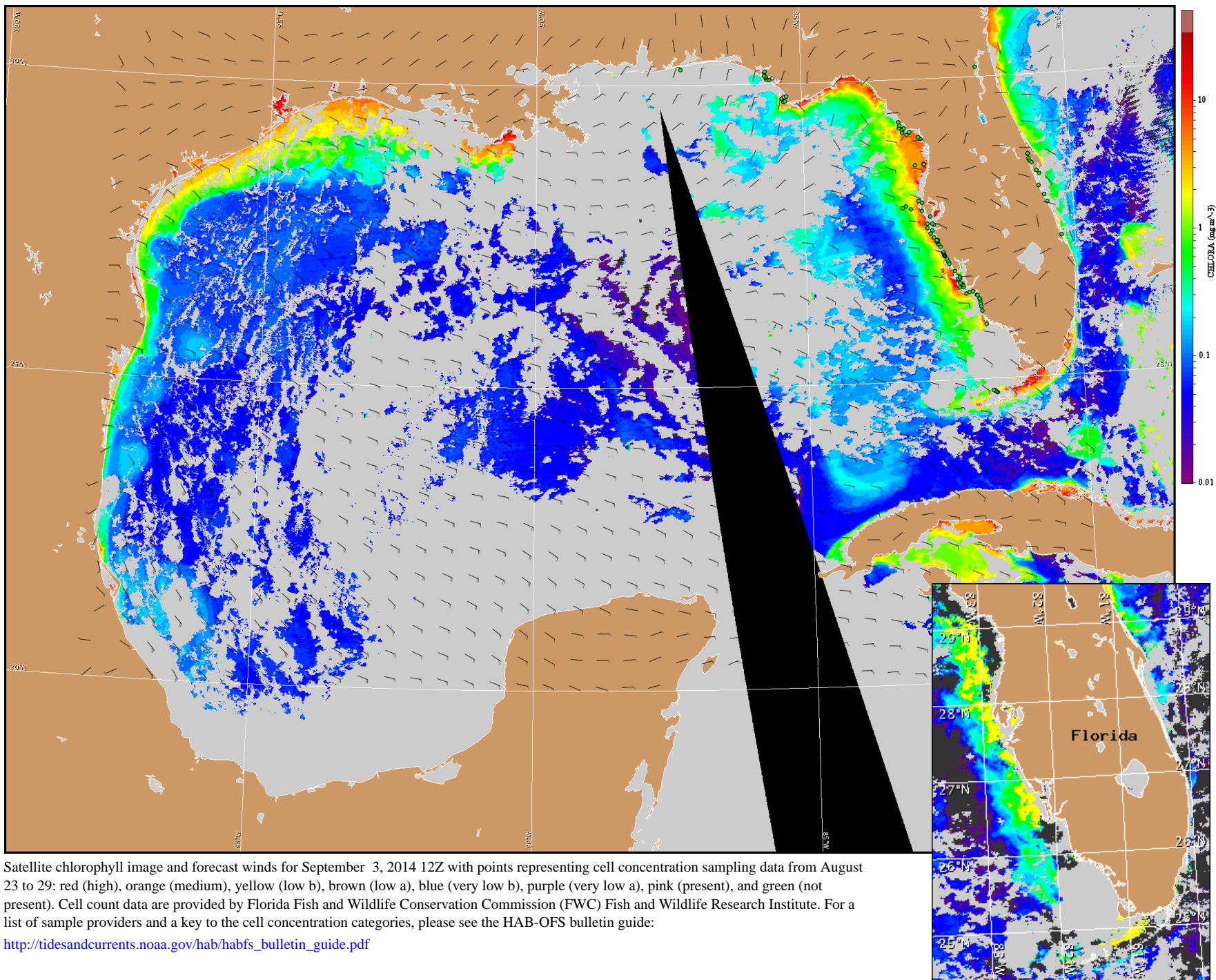
Wind Analysis

Southwest Florida: East winds (5 kn, 3m/s) today becoming west in the afternoon. North winds (10 kn, 5m/s) tonight becoming east (5kn) after midnight. East winds (10 kn) Wednesday becoming southeast (5 kn) in the afternoon. East winds (5-15 kn, 3-8 m/s) Wednesday night. Southeast winds (10 kn) Thursday and east winds (10 kn) Thursday night. Southeast winds (5-10 kn, 3-5 m/s) Friday. Northwest winds (5 kn) Friday night. Southeast winds (5 kn) Saturday becoming south in the afternoon.



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 September 3, 2014 12Z with points representing cell concentration sampling data from August 23 to 29: 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).