



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

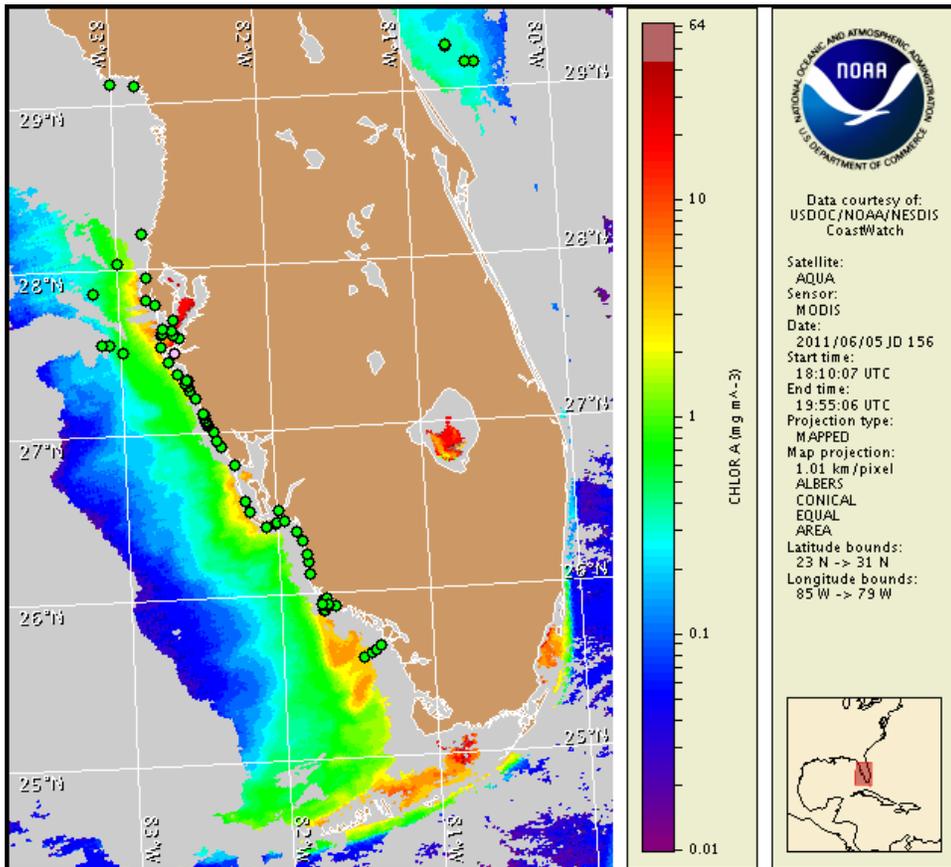
Monday, 06 June 2011

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Tuesday, May 31, 2011



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from May 27 to June 3 shown as red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data 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

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:

<http://tidesandcurrents.noaa.gov/hab/bulletins.html>

Conditions Report

There is currently no indication of a harmful algal bloom at the coast in southwest Florida, including the Florida Keys. No respiratory irritation impacts are expected along-shore southwest Florida today through Sunday, June 12. Localized patches of discolored water and dead fish were reported in the Marco Island region of central Collier County last week. This is attributed to a mixed bloom of non-toxic algae and low oxygen levels in the water. This mixed algal bloom does not produce respiratory irritation impacts associated with the Florida red tide caused by *Karenia brevis*.

Analysis

There is currently no indication of a *Karenia brevis* bloom in southwest Florida, including the Florida Keys region. Localized patches of discolored water and dead fish were reported last week in the Marco Island region of central Collier County (FWRI, CCPCPD; 5/29-6/2). These events are associated with a mixed non-toxic algal bloom and low dissolved oxygen levels (CCPCPD, 6/3). Background concentrations of *K. brevis* were identified in one of five samples collected in the Palma Sola Bay region of Manatee County (FWRI, 5/31). *K. brevis* was not identified in samples collected elsewhere along-shore southwest Florida from Pinellas to northern Monroe County, or offshore Pinellas and Manatee Counties (FWRI, MML, CCPCPD, SCHD; 5/29-6/3).

Recent MODIS imagery continues to show elevated chlorophyll levels ($\sim 2 \mu\text{g/L}$) along much of the southwest Florida coastline, with chlorophyll levels remaining slightly more elevated ($3\text{--}6 \mu\text{g/L}$) alongshore and up to 11 miles offshore southern Pinellas County, and Charlotte and northern Lee Counties. Chlorophyll levels in these areas have decreased over the past week. Elevated chlorophyll levels at the coast are likely the result of non-toxic algal blooms that continue to be reported in patches along southwest Florida.

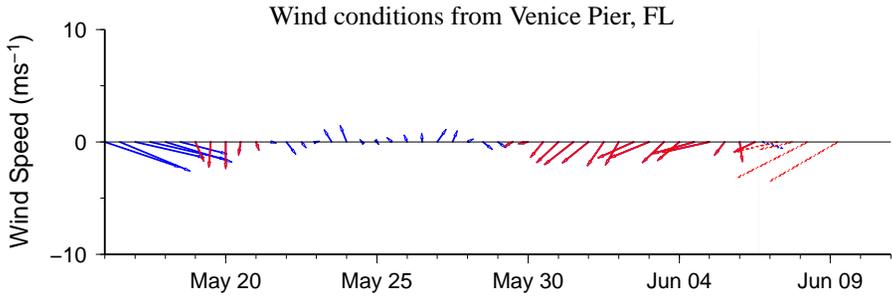
A large patch of elevated chlorophyll ($3\text{--}6 \mu\text{g/L}$) also remains visible offshore southern Collier County to Monroe County, and appears to have decreased in intensity. The feature currently extends from the Cape Romano region southward approximately 40 miles to $25^{\circ} 17' 25'' \text{N } 81^{\circ} 33' 26'' \text{W}$. This feature is unlikely to be associated with a *K. brevis* bloom.

Harmful algal bloom formation is not expected at the coast through Sunday, June 12.

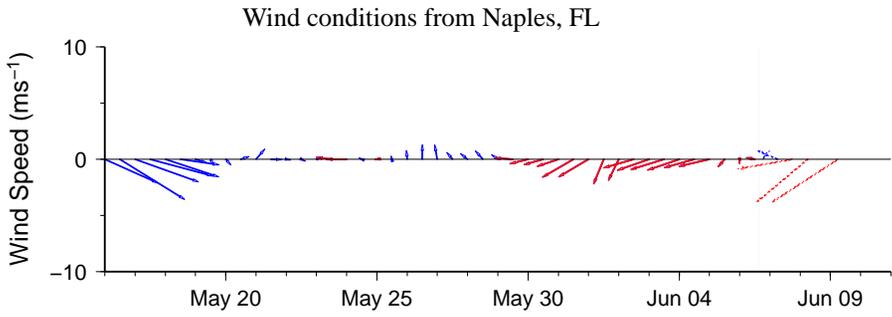
-Fisher, Yang

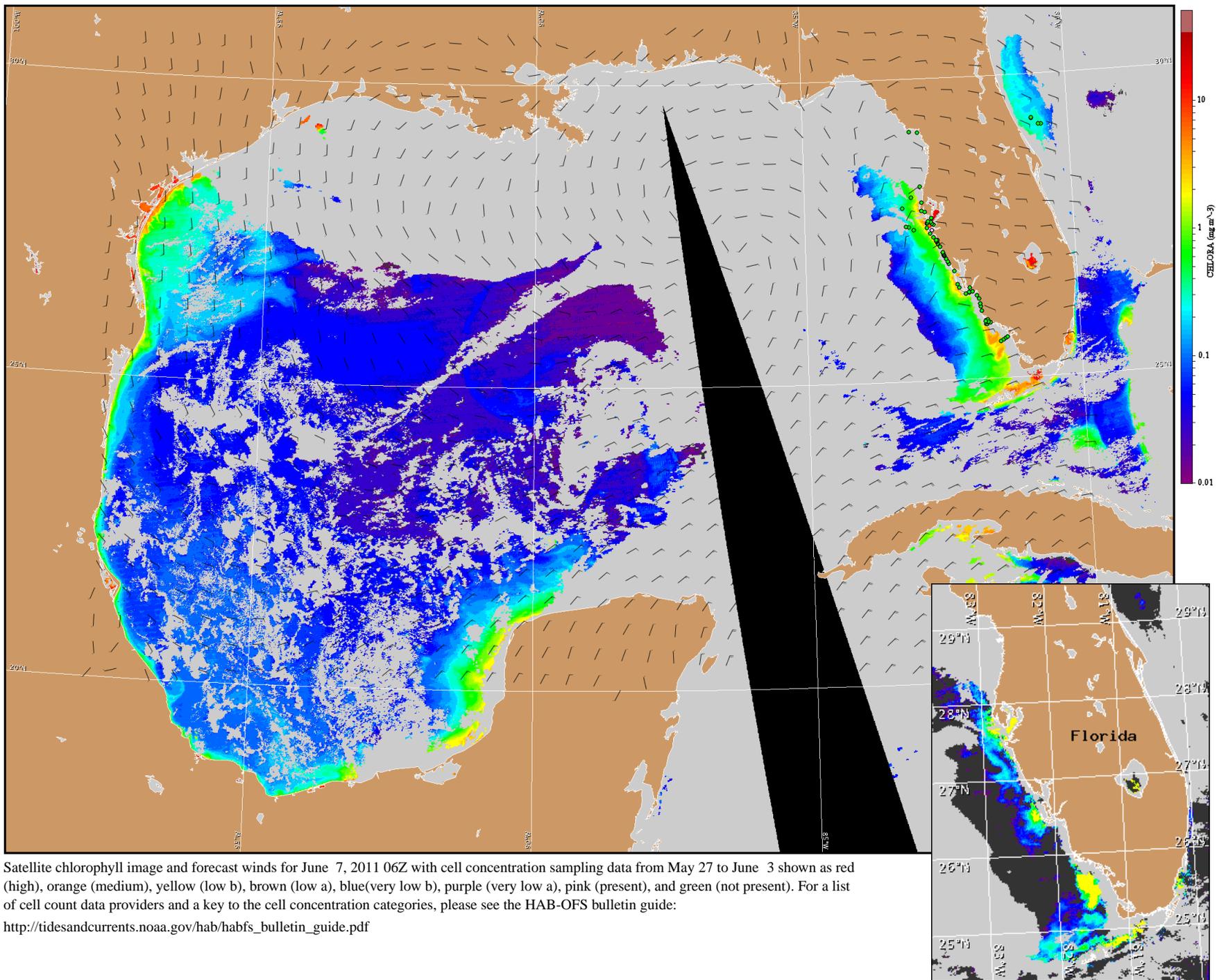
Wind Analysis

Southwest Florida: South winds becoming west (10kn, 5m/s) today. Northwest winds becoming east tonight (10kn). Northeast winds Tuesday (5kn, 3m/s), becoming northwest (10kn) in the afternoon. East winds (10kn) Tuesday night through Friday, shifting north in the afternoons.



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 June 7, 2011 06Z with cell concentration sampling data from May 27 to June 3 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data 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).