



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

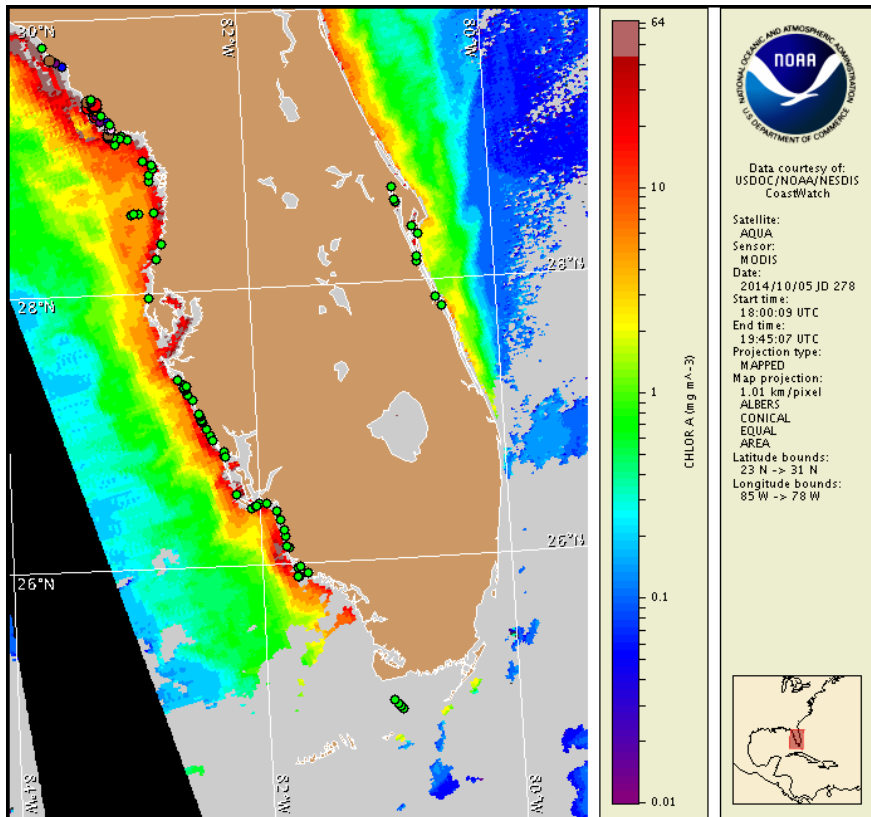
Monday, 06 October 2014

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, October 2, 2014



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from September 26 to October 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

Not present to high concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore portions of northwest and southwest Florida from Bay to Citrus counties. *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 alongshore southwest Florida Monday, October 6 through Thursday, October 9 is listed below:

County Region: Forecast (Duration)

Dixie: Low (M, Th), Moderate (Tu-W)

Levy: Very Low (M, Th), Low (Tu), Moderate (W)

All Other SWFL County Regions: None expected (M-Th)

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. Over the past several days, reports of dead fish were received from Dixie and Levy counties.

Analysis

Dixie to Citrus counties: Recent samples collected along- and offshore southwest Florida over the past several days continue to identify not present to 'high' concentrations of *Karenia brevis*. Samples collected last Wednesday identified several 'very low a' to 'high' *K. brevis* concentrations alongshore Dixie County, with the highest concentrations collected off Big Pine Island, Shired Island, and Seven Sisters Reef (FWRI; 10/1). Background to 'low a' concentrations were also identified alongshore Levy County (FWRI; 9/30), while all samples collected along- and offshore Citrus County indicated that *K. brevis* is not present (FWRI; 10/1). Over the past several days, reports of dead fish were received from along- and offshore Dixie and Levy counties (FWRI; 10/3-4). No respiratory irritation associated with *K. brevis* has been reported along the coast of southwest Florida (MML; 10/2-10/6).

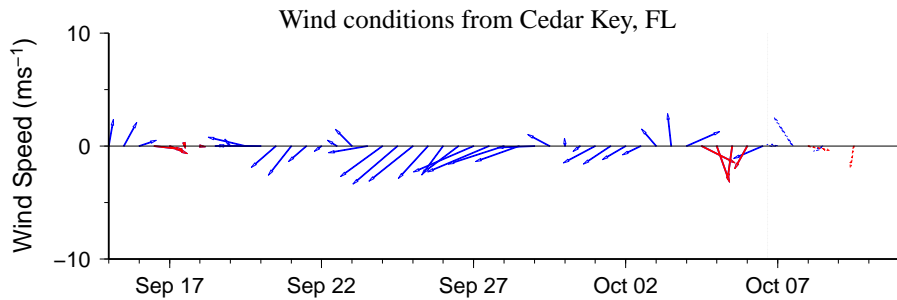
In Recent MODIS Aqua imagery from 10/5 (shown left) and 10/4 (not shown), elevated to very high chlorophyll (5 to > 20 $\mu\text{g/L}$) is visible in patches along- and offshore Dixie to Citrus counties, with the highest chlorophyll patches visible along- and offshore Dixie and Levy counties, consistent with areas in which *K. brevis* concentrations have been identified. Elevated chlorophyll in this region is not necessarily indicative of the presence of *K. brevis*; due to the optical characteristics that are typical in the area, some elevated chlorophyll may also be due to the resuspension of benthic chlorophyll and sediments along the coast.

Observed winds and surface currents over the past several days may have promoted southerly transport of *K. brevis* concentrations. Winds and surface currents forecasted over the next several days may promote northerly transport of surface *K. brevis* concentrations. Forecasted winds over the next several days may decrease the potential for respiratory irritation at the coast.

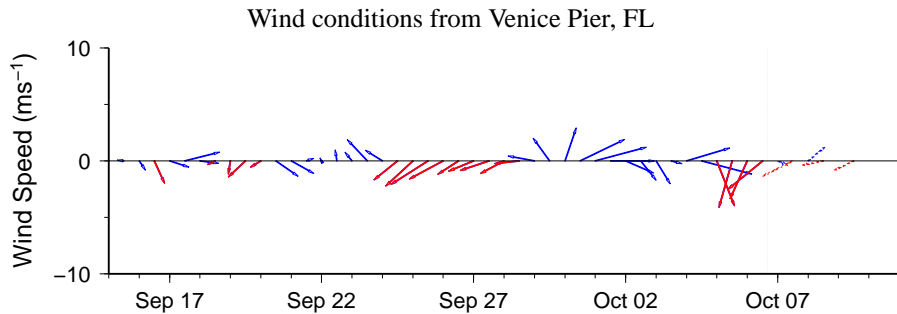
Hernando to Monroe counties: Recent samples collected alongshore from Hernando to Collier counties and offshore the Florida Keys continue to indicate that *K. brevis* is not present (FWRI, MML, SCHD; 9/29-10/2).

In recent MODIS Aqua imagery (10/5, shown left), patches of elevated to high chlorophyll (2 to 20 $\mu\text{g/L}$) are visible stretching along- and offshore the coast of southwest Florida from Hernando to Monroe counties, with patches of very high chlorophyll visible along- and offshore portions of Hernando, Pasco, and Sarasota to Collier counties. Elevated chlorophyll levels along the coast may be the result of various algal species that have been reported throughout the region and not due to *K. brevis*.

Derner, Davis



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).

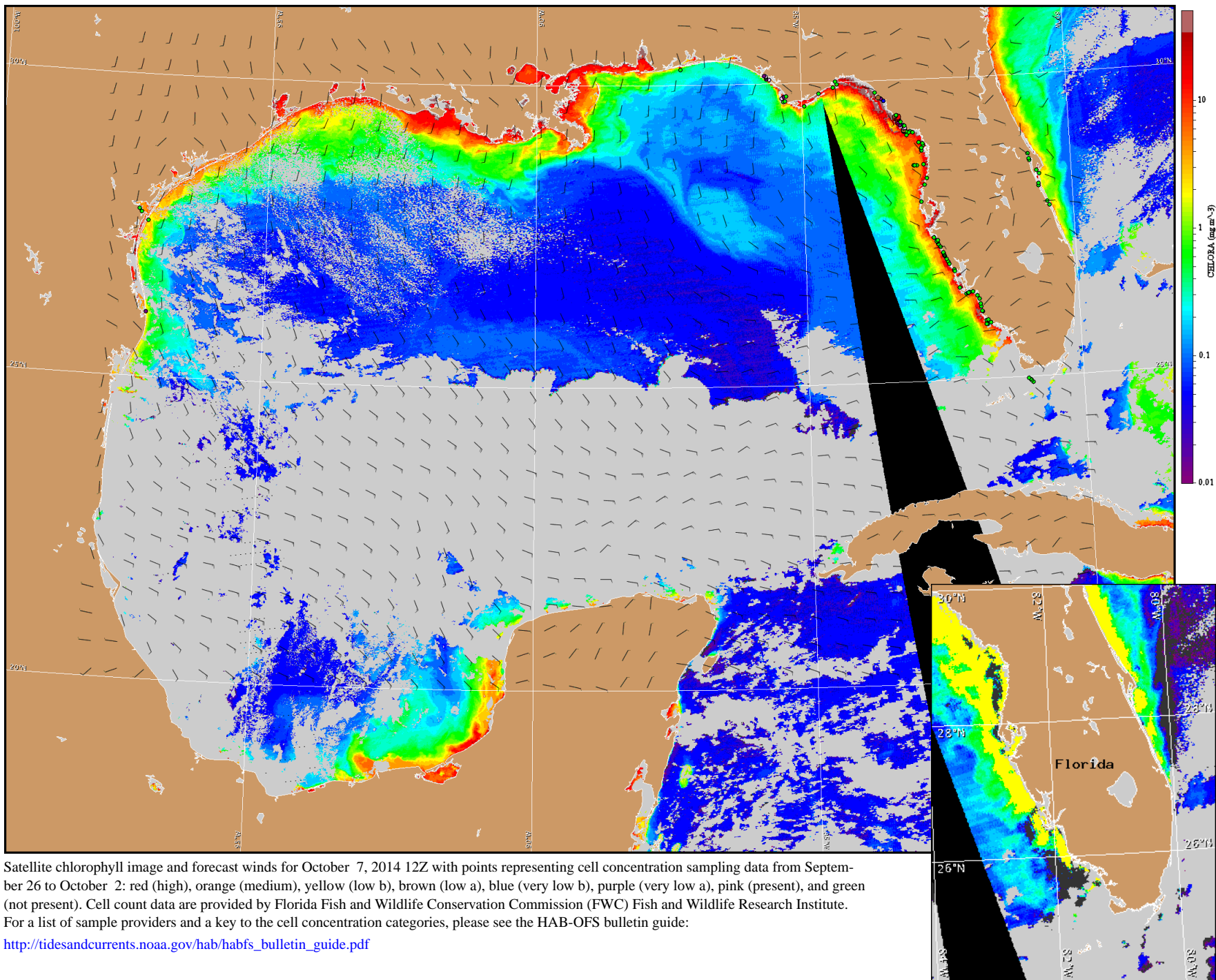


Wind Analysis

Suwannee River to Keaton Beach: Southeast winds (5-15kn, 3-8m/s) today through Tuesday becoming south Tuesday afternoon. South winds (5-10kn, 3-5m/s) Tuesday night becoming southeast (5kn, 3m/s) after midnight. Northeast winds (5kn) Wednesday becoming southwest nearshore Wednesday afternoon. Southeast winds (5kn) Wednesday night becoming east after midnight. East winds (5-10kn) Thursday becoming southeast Thursday afternoon.

Tarpon Springs to Suwannee River (Cedar Key Buoy): East winds (5-10kn) today and tonight. Southeast winds (10kn, 5 m/s) Tuesday becoming south (5kn) Tuesday afternoon. Northwest winds (5kn) Tuesday night becoming northeast after midnight through Wednesday. North winds (5kn) Wednesday afternoon through night, becoming east after midnight. Northeast winds (5-10kn) Thursday.

Englewood to Tarpon Springs (Venice Buoy): East winds (5-10kn) today through Tuesday becoming south (5kn) Tuesday afternoon. North winds (5kn) Tuesday night becoming northeast (10kn) after midnight. Northeast winds Wednesday (10kn) becoming north in the afternoon. North winds (10kn) Wednesday night becoming east after midnight. Northeast winds (10kn) Thursday.



Satellite chlorophyll image and forecast winds for October 7, 2014 12Z with points representing cell concentration sampling data from September 26 to October 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).