



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

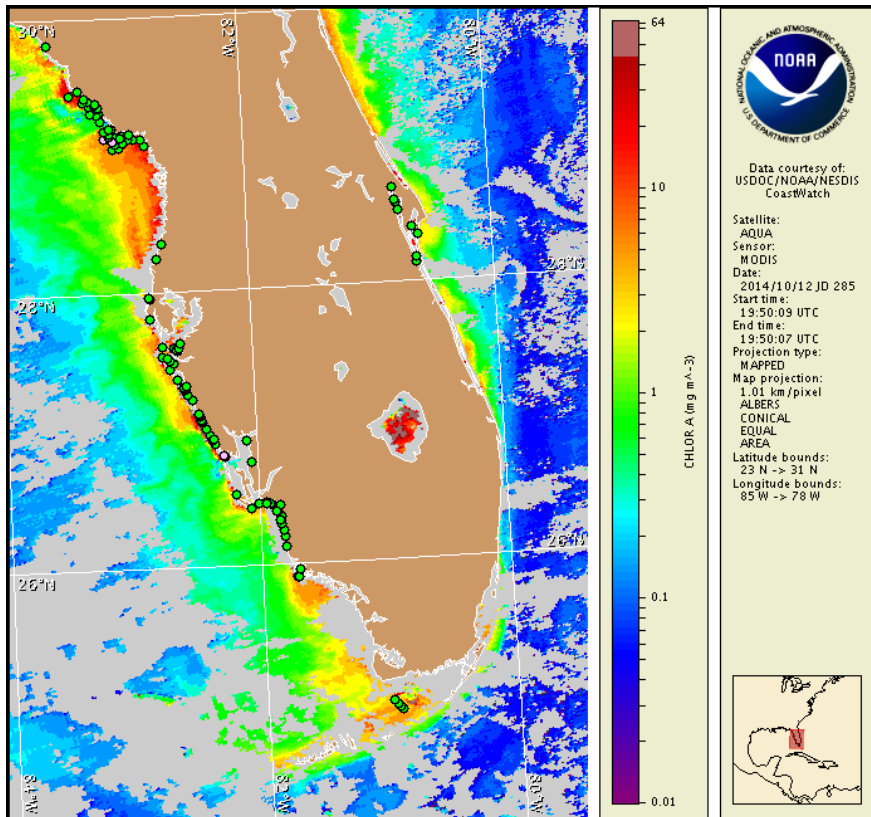
Tuesday, 14 October 2014

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, October 9, 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 5 to 9: 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 very low concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore portions of northwest and southwest Florida from Bay to Levy 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 Tuesday, October 14 through Thursday, October 16 is listed below:

County Region: Forecast (Duration)

Dixie: Very Low (Tu-Th)

Levy: Very Low (Tu-Th)

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

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.

Analysis

Dixie to Citrus counties: Recent samples collected along- and offshore southwest Florida over the past several days identified not present to background concentrations of *Karenia brevis*. In Dixie County, where sampling on 10/1 indicated up to 'high' concentrations of *K. brevis* (Seven Sisters Reef, Big Pine Island, Shired Island), samples now indicate that *K. brevis* is not present (FWRI; 10/8-9). In Levy County, where sampling on 9/30 indicated up to 'low a' concentrations (W of Gulf Jackson HDLA), samples now indicate that *K. brevis* is either not present or at background concentrations (FWRI; 10/8). No dead fish or respiratory irritation associated with *K. brevis* have been reported along this portion of the southwest Florida coast over the past several days (FWRI, MML; 10/9-10/14).

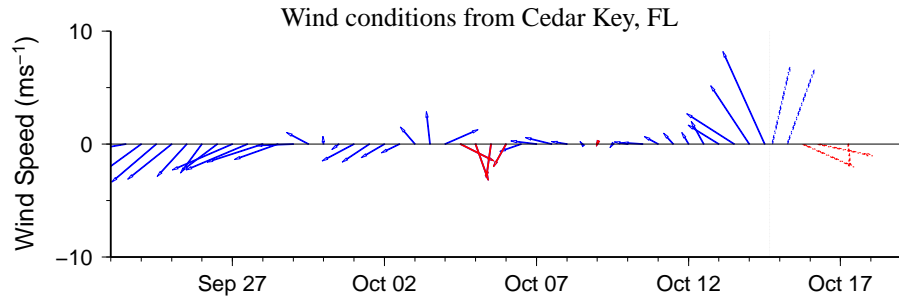
In Recent MODIS Aqua imagery from 10/12 (shown left), elevated to high chlorophyll (2 to 20 $\mu\text{g/L}$) is visible in patches along- and offshore Dixie to Citrus counties. Over the past few days, a patch of elevated chlorophyll (3 to 6 $\mu\text{g/L}$; approximately 25 km wide and centered at 28.996N 83.172 W) has been visible just offshore Levy County. 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 northerly transport of *K. brevis* concentrations. Winds and surface currents forecasted Wednesday and Thursday may promote southeasterly transport of surface *K. brevis* concentrations.

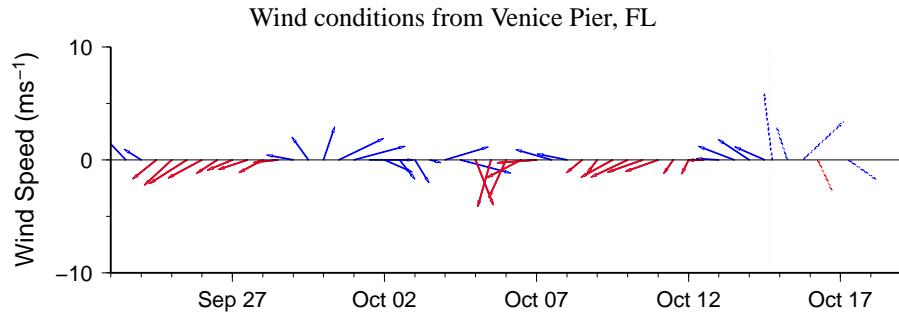
Hernando to Monroe counties: Recent samples collected along- and offshore from Pasco to Collier counties and indicate that *K. brevis* is either not present or at background concentrations (FWRI, MML, SCHD, CCPCPD; 10/6-9). Reports of dead fish were received from northern Manatee County (FWRI; 10/8).

Over the past several days, MODIS Aqua imagery (10/12, shown on page 1) indicates that chlorophyll levels have generally declined throughout southwest Florida although patches of elevated to very high chlorophyll (2 to $>20 \mu\text{g/L}$) remain visible stretching along- and offshore the coast of Florida from Hernando to Lee 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*.

Urizar, 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).

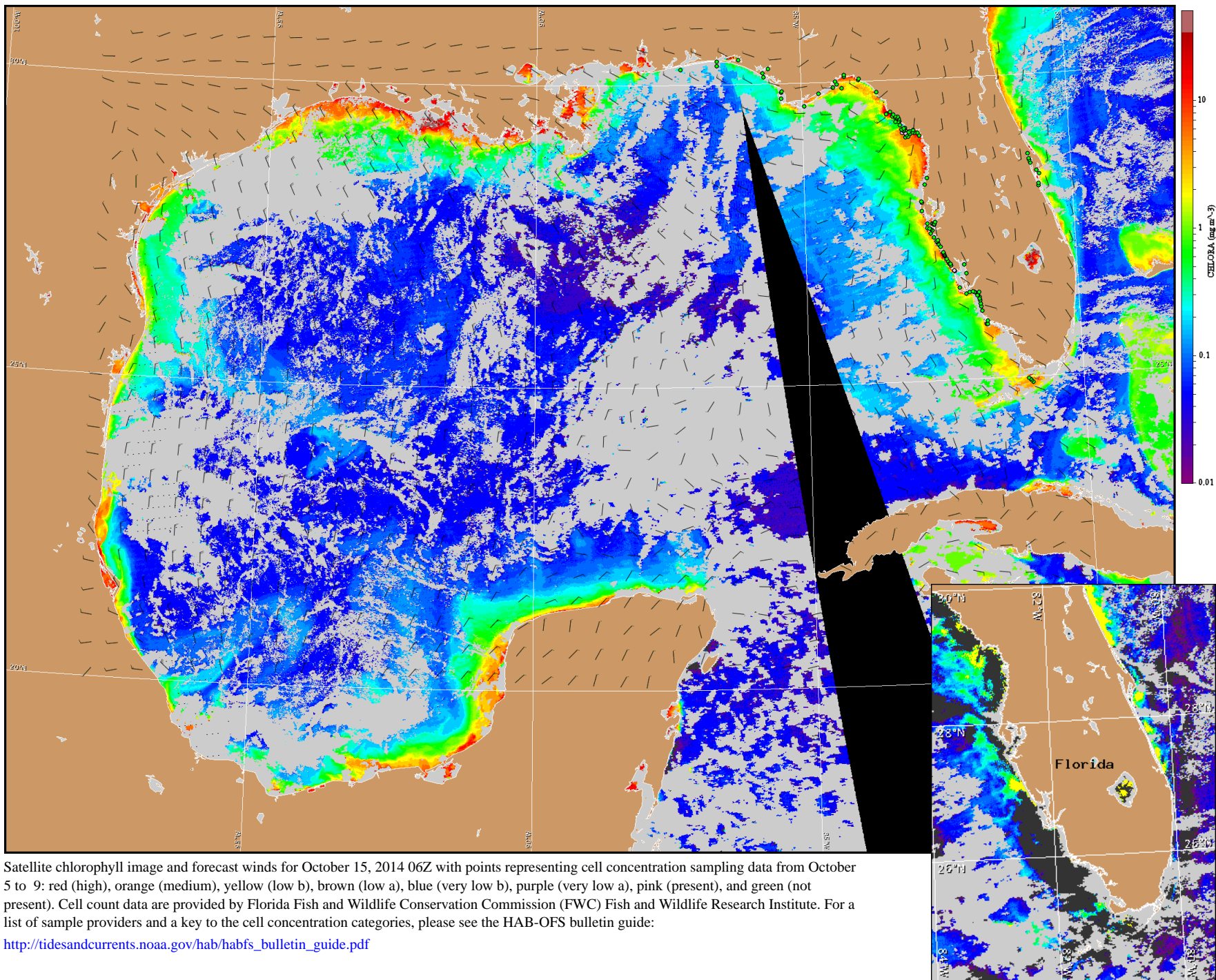


Wind Analysis

Suwannee River to Keaton Beach Southerly winds (20 kn, 10 m/s) today. Southwesterly winds (10-15 kn, 5-8 m/s) tonight becoming northwesterly after midnight. Northwesterly winds Wednesday and Thursday (5-15 kn, 3-8 m/s) with westerly winds in each afternoon.

Tarpon Springs to Suwannee River (Cedar Key Buoy): Southerly winds (10-20 kn, 5-10 m/s) today. Westerly to northwesterly winds (10 kn, 5 m/s) Wednesday. Northwesterly winds (10 kn) Thursday.

Englewood to Tarpon Springs (Venice Buoy): Southerly winds (10-20 kn) today. Northerly to northwesterly winds (10 kn) Wednesday and Thursday.



Satellite chlorophyll image and forecast winds for October 15, 2014 06Z with points representing cell concentration sampling data from October 5 to 9: 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).