

Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

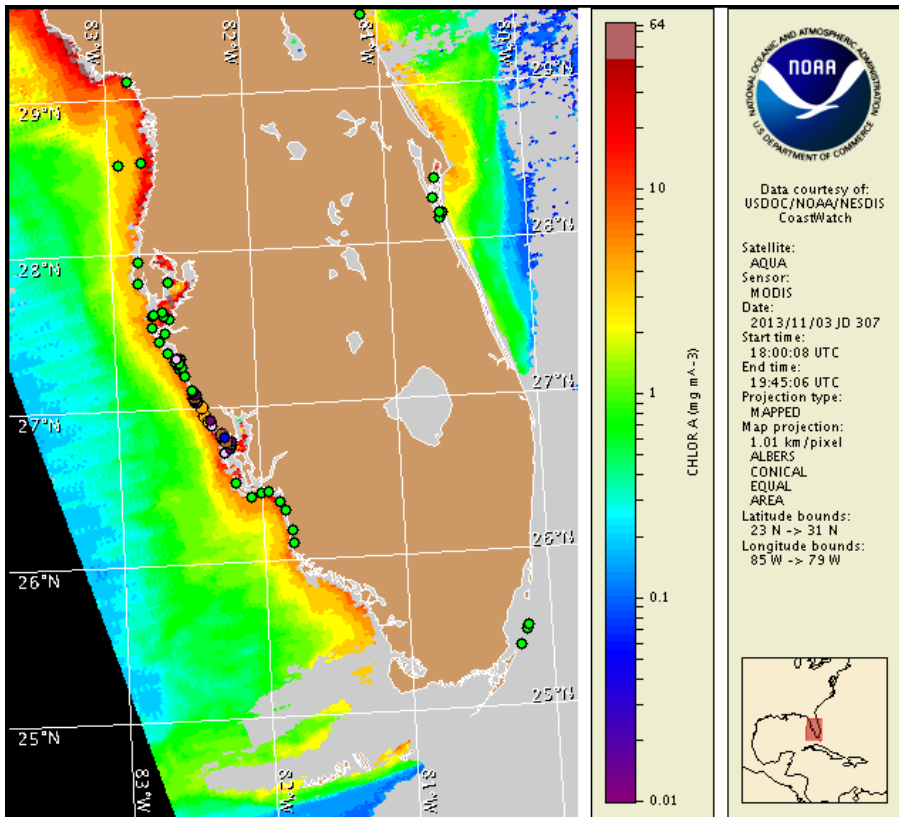
Monday, 04 November 2013

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Wednesday, October 30, 2013



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from October 25 to November 1: 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 southwest Florida, as well as offshore the lower 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 4 to Thursday, November 7 is listed below:

County Region: Forecast (Duration)

Southern Sarasota: Very Low (M-Th)

Northern Charlotte: Very Low (M-Th)

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

All Other SWFL County Regions: None (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. Over the past several days, no reports of respiratory irritation or dead fish associated with *K. brevis* were received from southwest Florida.

Analysis

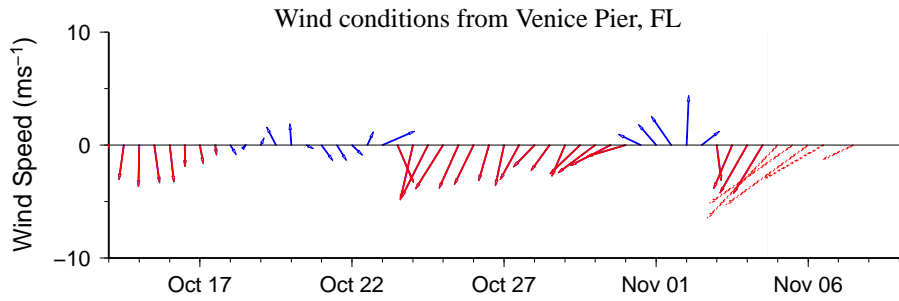
Recent samples collected alongshore southwest Florida from Pinellas to Lee counties indicate that *Karenia brevis* concentrations range from 'not present' to 'medium' (FWRI, SCHD; 10/26-31). Samples collected on Wednesday and Thursday last week identified 'background' to 'very low a' *K. brevis* concentrations in the Lemon Bay area of northern Charlotte County, and 'very low a' to 'low a' concentrations in the Gasparilla Sound region of Charlotte County (FWRI; 10/30-31). One 'very low a' sample was also identified 2.4 miles east of Boca Grande in northern Lee County (FWRI; 10/31). Samples collected alongshore southern Manatee, northern Sarasota, and southern Lee counties all indicated that *K. brevis* is not present (FWRI; 10/26-31). No dead fish or respiratory irritation associated with *K. brevis* have been reported in the past several days (FWRI, MML; 10/30-11/3).

Recent MODIS Aqua imagery (11/3, shown left) is partially obscured by clouds along the coast of southwest Florida, limiting analysis. Elevated chlorophyll (2-10 $\mu\text{g/L}$) is visible stretching along- and offshore southwest Florida from Pinellas to Monroe counties, with patches of high chlorophyll (10-20 $\mu\text{g/L}$) visible along- and offshore northern Charlotte to southern Lee counties.

Upwelling favorable wind conditions forecasted this week may increase the potential for *K. brevis* bloom formation at the coast; however, offshore winds will decrease the potential for impacts alongshore southwest Florida.

****Note: As of today, November 4, southwest Florida bulletins will be issued twice weekly on Mondays and Thursdays due to current *K. brevis* concentrations.****

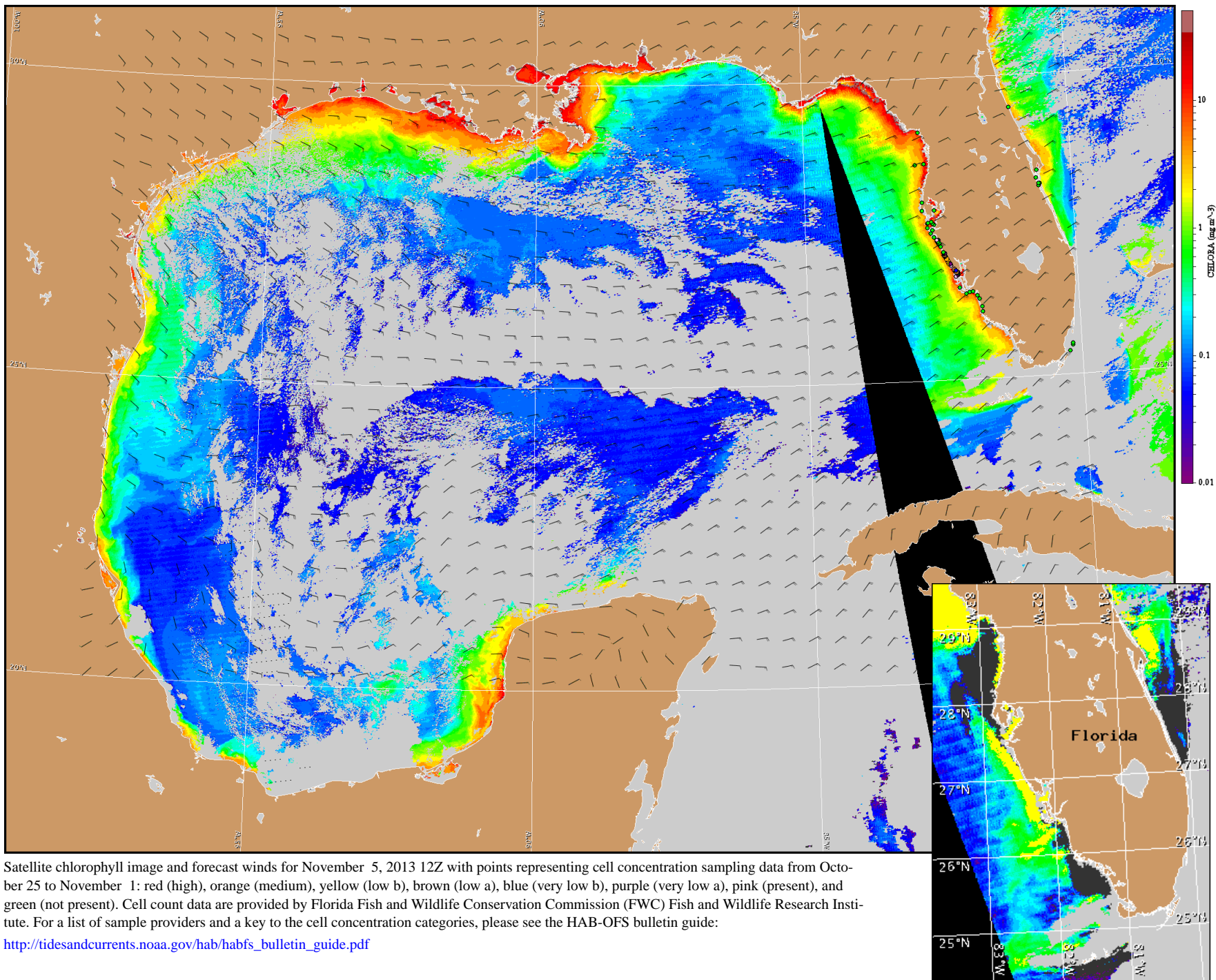
Derner, Burrows



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

Southwest Florida: Northeast winds (15-20kn, 8-10m/s) today through Tuesday. East winds (10-20kn, 5-10m/s) Tuesday night through Thursday, becoming north winds (5-10kn, 3-5m/s) Thursday afternoon through Thursday night. Northeast winds (10-15kn, 5-8m/s) Friday.



Satellite chlorophyll image and forecast winds for November 5, 2013 12Z with points representing cell concentration sampling data from October 25 to November 1: 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

Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).