



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

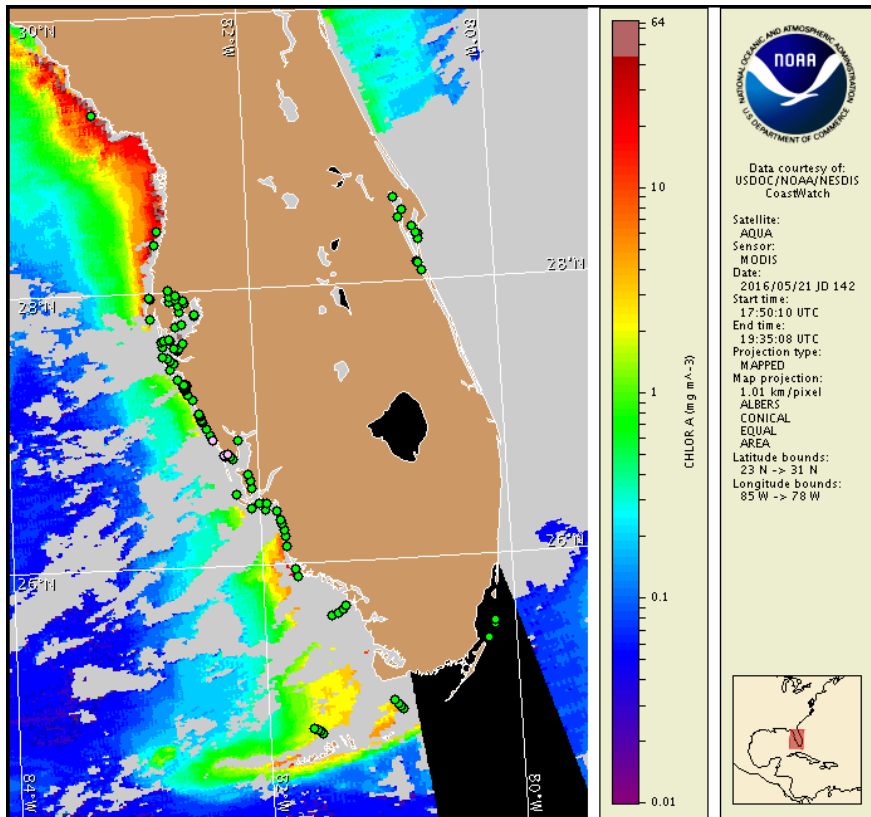
Monday, 23 May 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, May 19, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from May 13 to 20: 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/hab_publication/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 southwest Florida, and not present in the 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, May 23 to Thursday, May 26 is listed below:

County Region: Forecast (Duration)

Northern Sarasota, bay regions: Very Low (M-Th)

All Other SWFL County Regions: None expected (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.

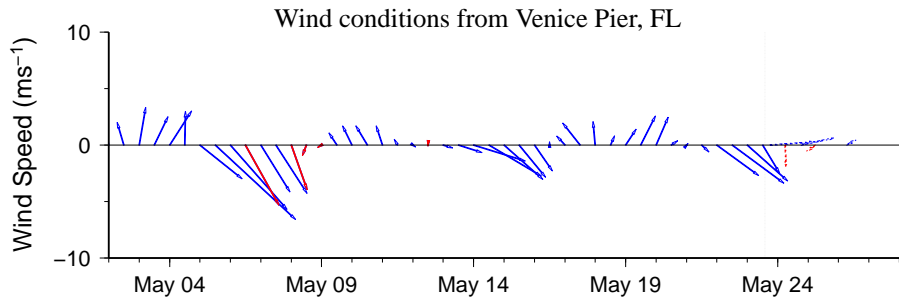
Analysis

Recent samples collected along- and offshore the coast of southwest Florida from Pinellas to Monroe counties indicate that *Karenia brevis* concentrations range from not present to 'very low a', with the 'very low a' concentrations identified within the northern Sarasota Bay region (FWRI, MML, SCHD, CCENRD; 5/13-19). Background concentrations were also identified within Sarasota Bay, at Englewood Beach and Gasparilla Pass in Charlotte County, and alongshore southern Pinellas County (FWRI, MML, SCHD; 5/16-18). All other samples collected from Pinellas to Collier counties indicate that *K. brevis* is not present (FWRI, MML, SCHD, CCENRD; 5/13-19). No reports of respiratory irritation or dead fish have been received over the last several days (MML, FWRI; 5/19-22). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: <http://myfwc.com/redtidestatus>.

Imagery from the past several days is mostly obscured by clouds alongshore southwest Florida from Pinellas to Monroe counties, limiting analysis. In MODIS Aqua ensemble imagery from 5/21 (shown left), patches of elevated chlorophyll (1-6 $\mu\text{g/L}$) are visible along- and offshore central Collier county.

Variable winds forecast today through Thursday will decrease the potential for transport or intensification of any remaining surface *K. brevis* concentrations along the coast of southwest Florida.

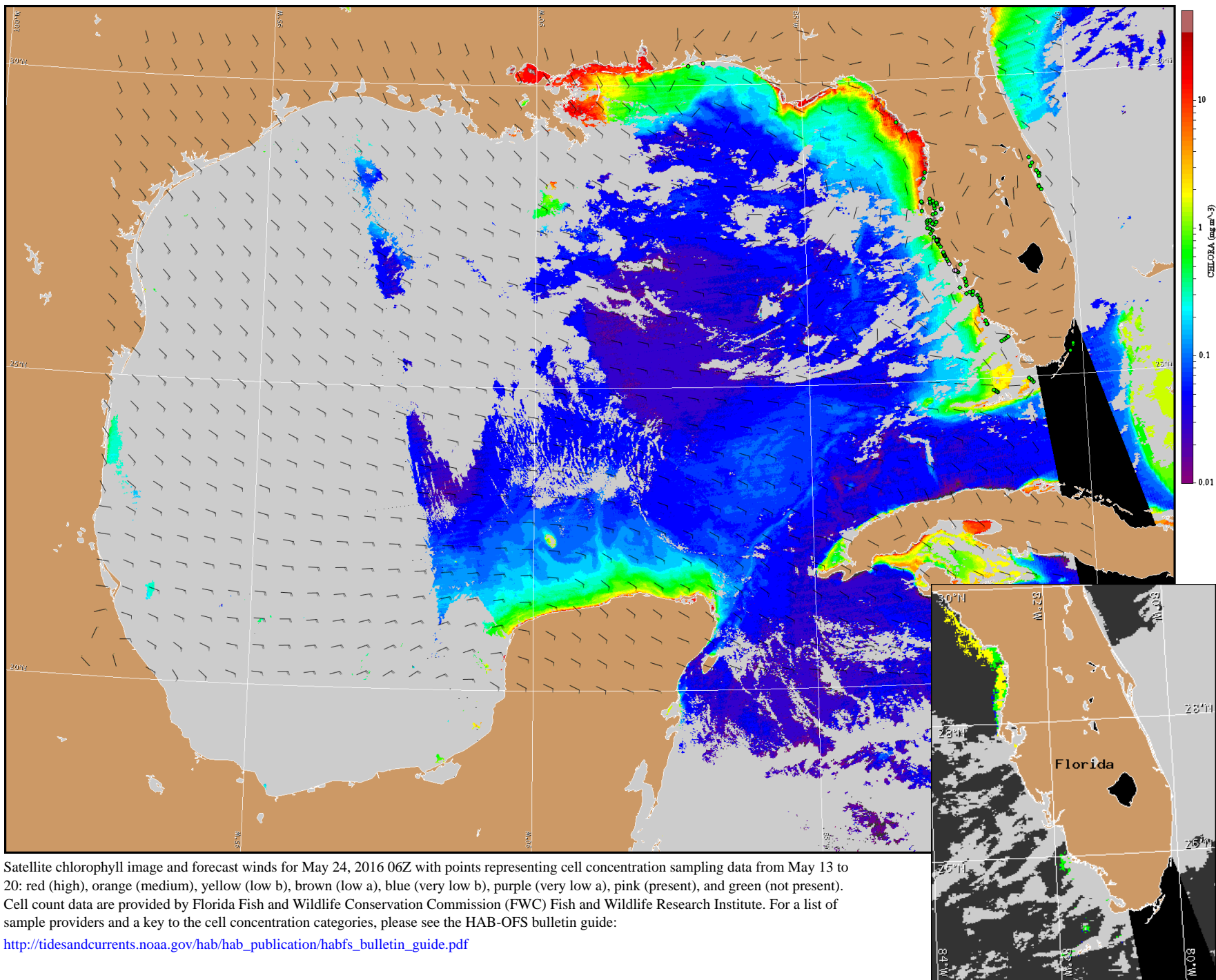
Derner, Lalime



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

Englewood to Tarpon Springs (Venice): Northwest winds (10kn, 5m/s) today becoming northeast tonight. East winds (10kn) Tuesday becoming north-northwest (5-10kn, 3-5m/s) in the afternoon and northeast (5-10kn) Tuesday evening/night. East to northeast winds (5-15kn, 3-8 m/s) Wednesday. Northeast winds (10kn) Thursday.



Satellite chlorophyll image and forecast winds for May 24, 2016 06Z with points representing cell concentration sampling data from May 13 to 20: 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 with *K. brevis* optical characteristics shown in yellow (see p. 1 analysis for interpretation).