



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

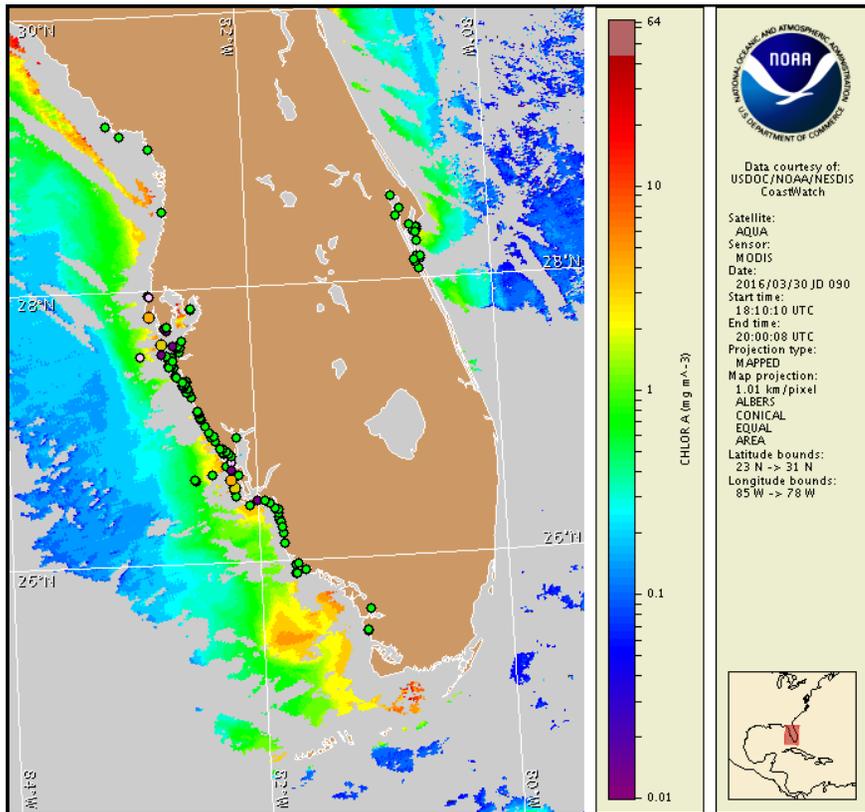
Thursday, 31 March 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, March 28, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from March 21 to 30: 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 medium 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 Thursday, March 31 to Monday, April 4 is listed below:

County Region: Forecast (Duration)

Southern Pinellas: Moderate (Th-Sa), Very Low (Su-M)

Northern Lee: Very Low (Th, M), Moderate (F-Su)

Northern Lee, bay regions: Moderate (Th-M)

Central Lee: Very Low (Th, M), Moderate (F-Su)

Central Lee, bay regions: Moderate (Th-M)

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

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. Respiratory irritation was reported in Lee County.

Analysis

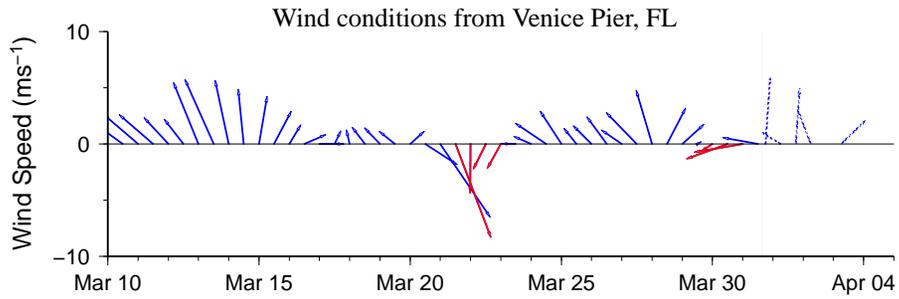
Recent samples collected along-and offshore the coast of southwest Florida from Pinellas to Monroe counties identified not present to 'medium' concentrations of *Karenia brevis*. 'Medium' *K. brevis* concentrations were observed at Redington Pier alongshore southern Pinellas County and at Captiva Pass in northern Lee County; 'low b' concentrations were observed at Gulf Pier on Mullet Key in Pinellas County and in Redfish Pass in Lee County; and 'very low a' concentrations were observed in the bay regions from south Pinellas to north Sarasota counties and in Pine Island Sound in northern Lee County (FWRI, SCHD, CCENRD; 3/23-29). Respiratory irritation was reported at Captiva Island in Lee County (MML; 3/29). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at:

<http://myfwc.com/redtidestatus>.

Recent ensemble imagery (MODIS Aqua, 3/30) is partially obscured by clouds along the coast of southwest Florida, limiting analysis. Elevated chlorophyll (1-4 $\mu\text{g/L}$) is visible extending offshore the coast from Pinellas to Monroe counties. A patch of elevated chlorophyll (1-4 $\mu\text{g/L}$) with the optical characteristics of *K. brevis* is visible extending from 36 to 52 miles offshore Monroe County.

Southerly winds forecast alongshore southwest Florida today through Friday may promote northerly transport of any remaining surface *K. brevis* concentrations at the coast.

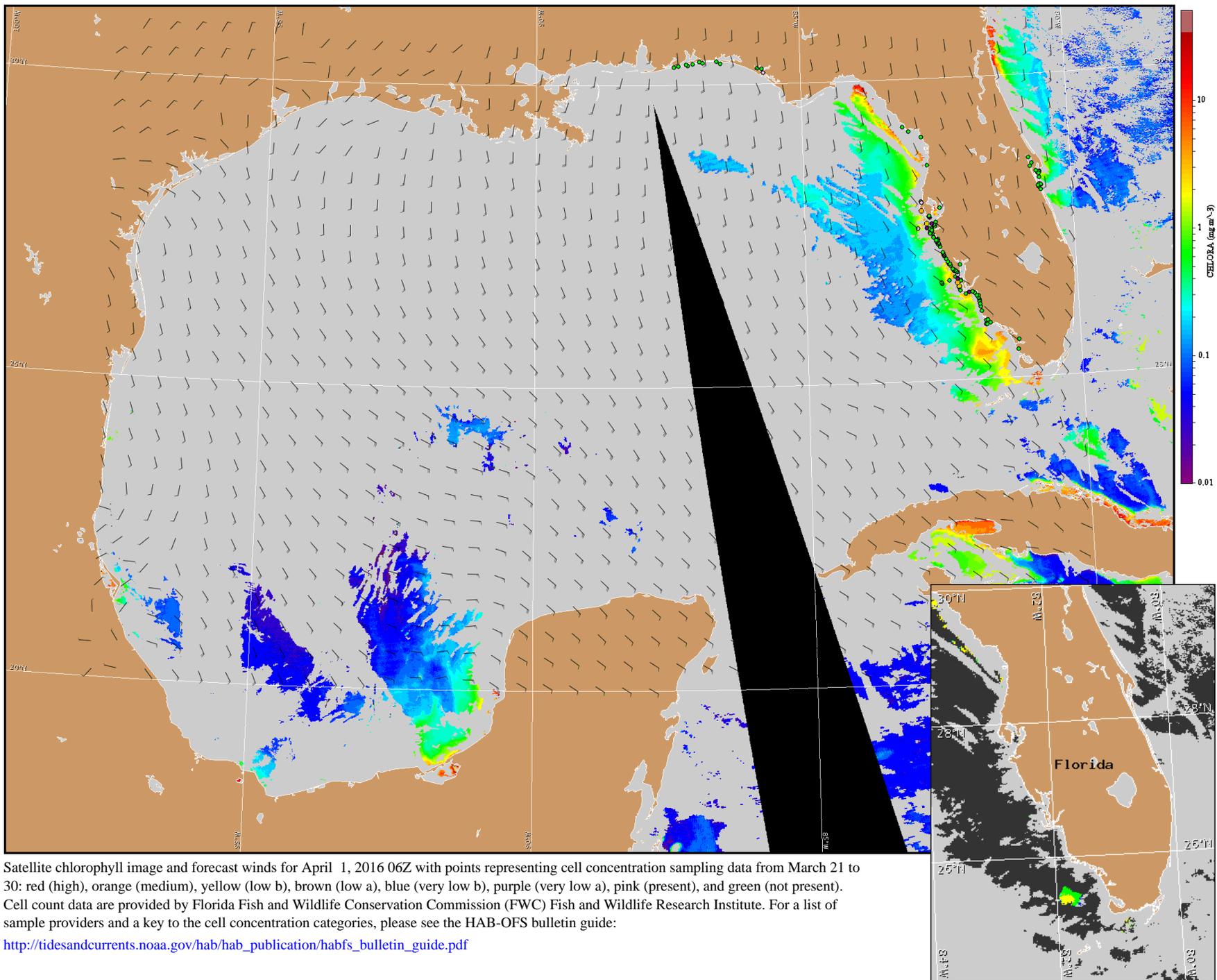
Lalime, Davis



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

Englewood to Tarpon Springs (Venice): Southeast to south winds (10-15kn, 5-8m/s) today and tonight. South winds (10-15kn) Friday becoming southwest on Saturday. West to northwest winds (10-15kn) Saturday night. North to northeast winds (5-15kn, 3-8m/s) Sunday through Monday.



Satellite chlorophyll image and forecast winds for April 1, 2016 06Z with points representing cell concentration sampling data from March 21 to 30: 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).