



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

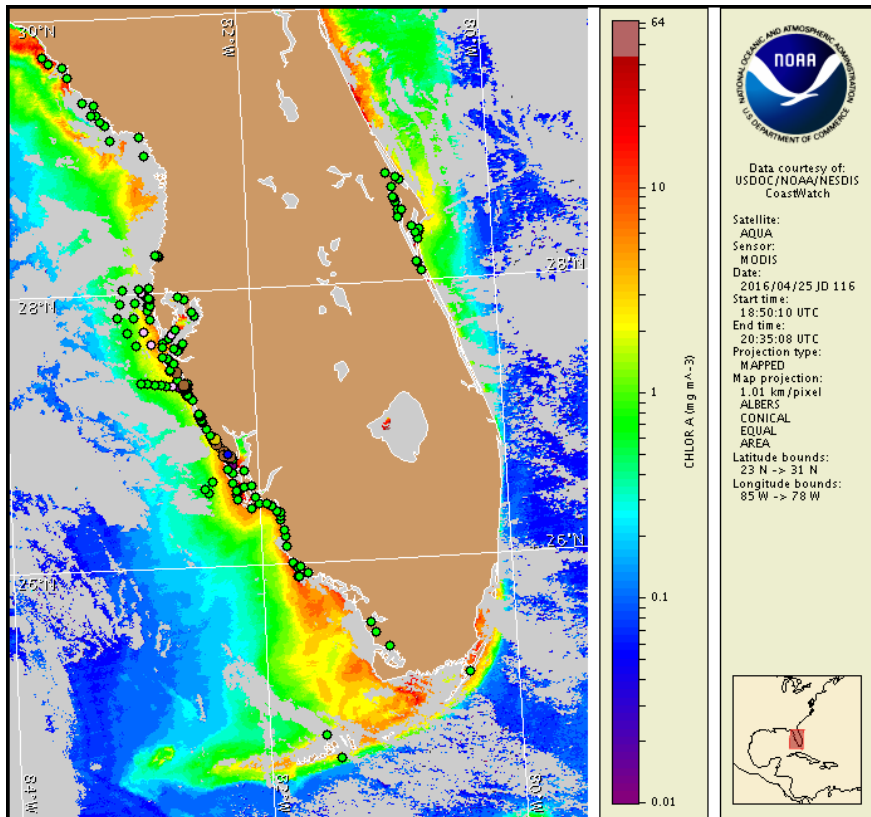
Thursday, 28 April 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, April 25, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from April 18 to 26: 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 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 Thursday, April 28 to Monday, May 2 is listed below:

County Region: Forecast (Duration)

Northern Pinellas: Very Low (Th-M)

Northern Pinellas, bay regions: Low (Th-M)

Southern Pinellas: Very Low (Th-M)

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

Southern Manatee: Very Low (Th-M)

Southern Manatee, bay regions: Low (Th-M)

Northern Sarasota: Low (Th-M)

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

Southern Sarasota: Very Low (Th-M)

Northern Charlotte: Very Low (Th-M)

Northern Charlotte, bay regions: Low (Th-M)

Southern Charlotte: Very Low (Th-M)

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

Northern Lee: Very Low (Th-M)

Northern Lee, bay regions: Very Low (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.

Analysis

Recent sampling indicates that *Karenia brevis* concentrations range from not present to 'low b' along- and offshore the coast of southwest Florida from northern Pinellas to northern Lee counties, and is not present in the Florida Keys (FWRI, MML, SCHD, CCENRD; 4/20-27). In Pinellas County, sampling along- and offshore this week continues to indicate that *K. brevis* is decreasing with all samples indicating not present to background concentrations (FWRI; 4/20-25). In Charlotte County, recent sampling in Lemon Bay indicated *K. brevis* concentrations have decreased to 'low a' from 'low b' with the highest concentration detected at Sandfly Key (FWRI; 4/25). In Lee and Collier counties, two 'very low a' *K. brevis* concentrations were detected at Boca Grande Pass and south of Cayo Pelau while all other sampling continues to indicate *K. brevis* is not present (FWRI, CCENRD; 4/20-27). No reports of dead fish or respiratory irritation have been received over the last several days (FWRI, MML; 4/25-28). 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 has been obscured by clouds along- and offshore southwest Florida, preventing analysis. In MODIS Aqua from 4/25 (shown left), patches of elevated

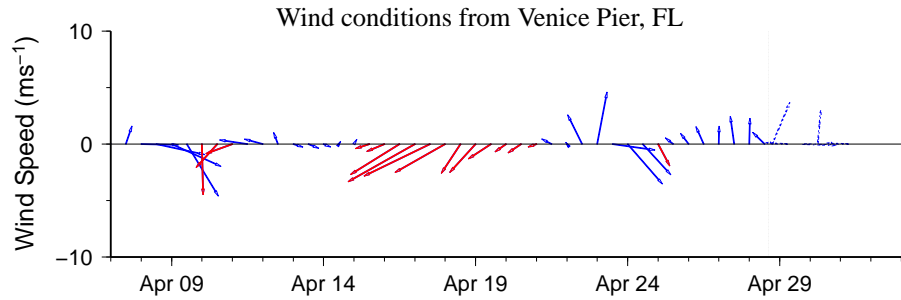
chlorophyll ($2-8\mu\text{g/L}$) with some of the optical properties of *K. brevis* are visible along- and offshore southwest Florida from Pinellas to Lee County.

Variable winds forecast today through Monday will decrease the potential for transport of surface *K. brevis* concentrations along the coast of southwest Florida.

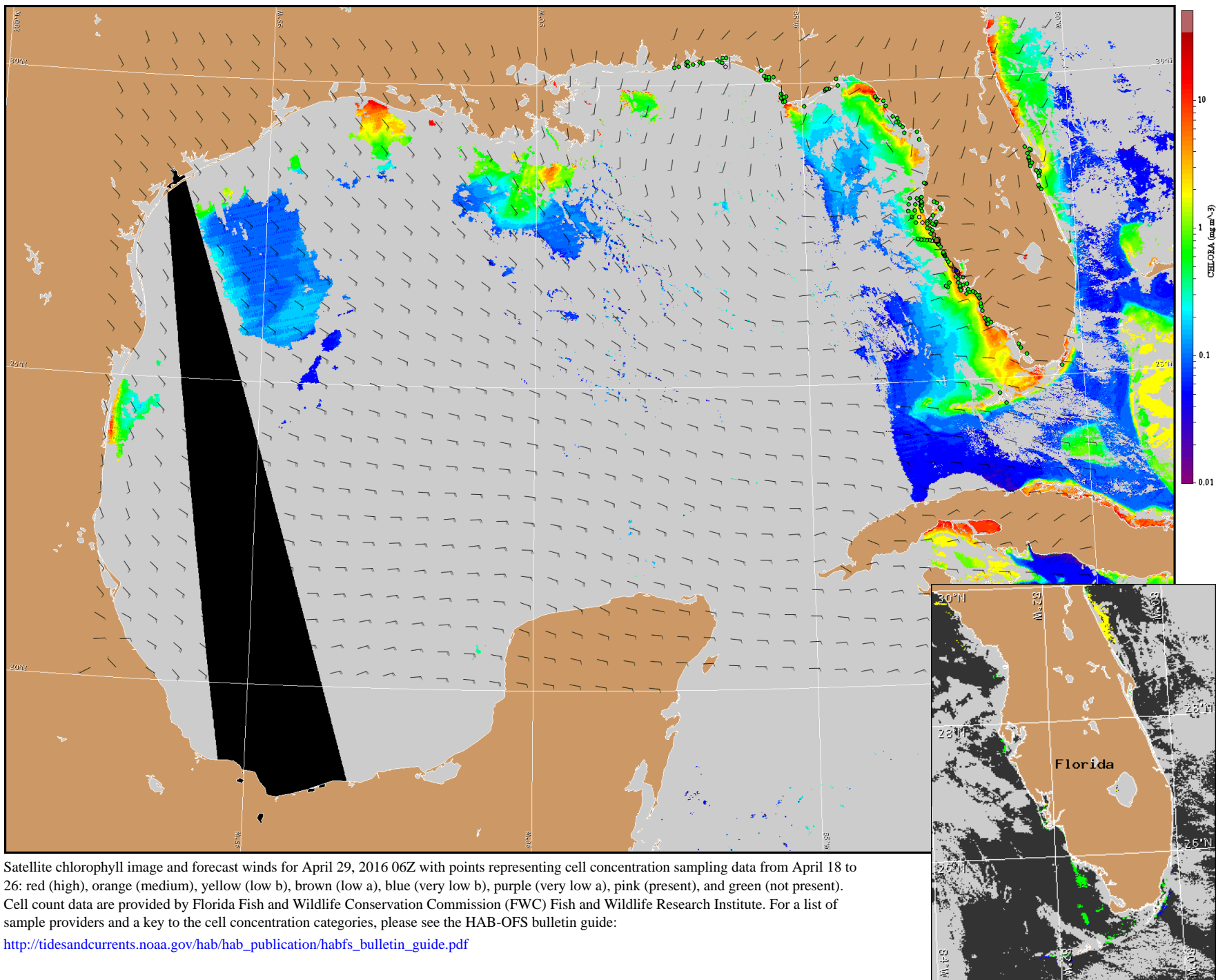
Davis, Yang

Wind Analysis

Englewood to Tarpon Springs (Venice): Variable winds (5kn, 3m/s) today. Northwest to northeast winds (5-10kn, 3-5m/s) Friday. Variable winds (5-10kn) Saturday and Sunday. Southeast to southwest winds (5kn) Monday.



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).



Satellite chlorophyll image and forecast winds for April 29, 2016 06Z with points representing cell concentration sampling data from April 18 to 26: 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).