



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

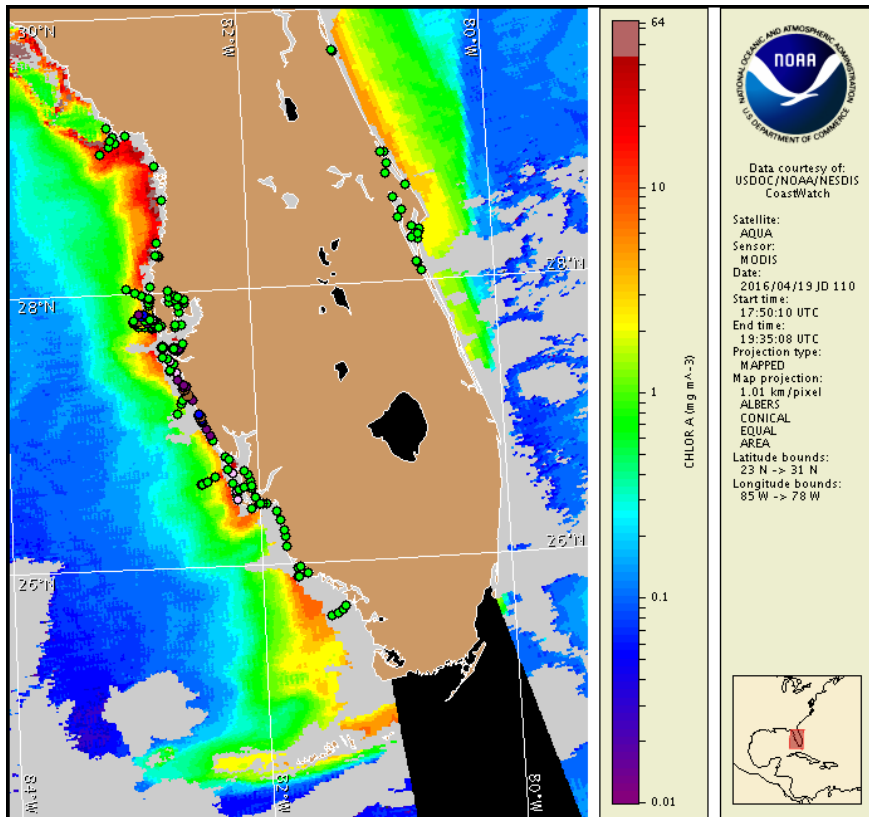
Thursday, 21 April 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, April 18, 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 11 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 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 21 to Monday, April 25 is listed below:

County Region: Forecast (Duration)

Northern Pinellas: Very Low (Th-M)

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

Southern Pinellas: Very Low (Th-M)

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

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

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

Northern Sarasota: Low (Th-Sa), Very Low (Su-M)

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

Southern Sarasota: 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.

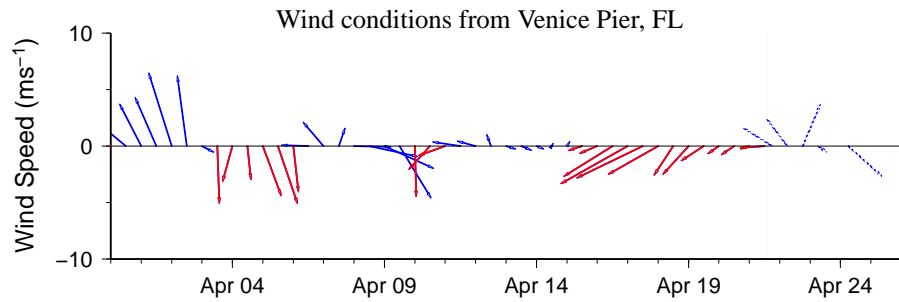
Analysis

Recent sampling alongshore southwest Florida continues to indicate that *Karenia brevis* concentrations are dissipating. *K. brevis* ranges from not present to 'low b' concentrations along- and offshore the coast of southwest Florida from northern Pinellas to southern Sarasota counties (FWRI, MML, SCHD, CCENRD; 4/11-19). Samples collected over the past week identified background to 'very low a' concentrations alongshore northern Manatee County, as well as background concentrations along North Redington Beach in Pinellas County and within the Pine Island Sound region of Lee County (FWRI; 4/15-18). A sample collected at the Clearwater Beach Pier in Pinellas County indicated that *K. brevis* is not present where previous sampling identified up to 'very low a' concentrations (FWRI; 4/19). No reports of dead fish or respiratory irritation have been received over the last several days (FWRI, MML; 4/18-21). 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, 4/19) is mostly obscured by clouds alongshore southwest Florida, limiting analysis. Patches of elevated chlorophyll (3-10 $\mu\text{g/L}$) with the optical properties of *K. brevis* are visible offshore Pinellas and Lee counties.

Variable winds forecast over the next several days will decrease the potential for transport or intensification of surface *K. brevis* concentrations along the coast of southwest Florida.

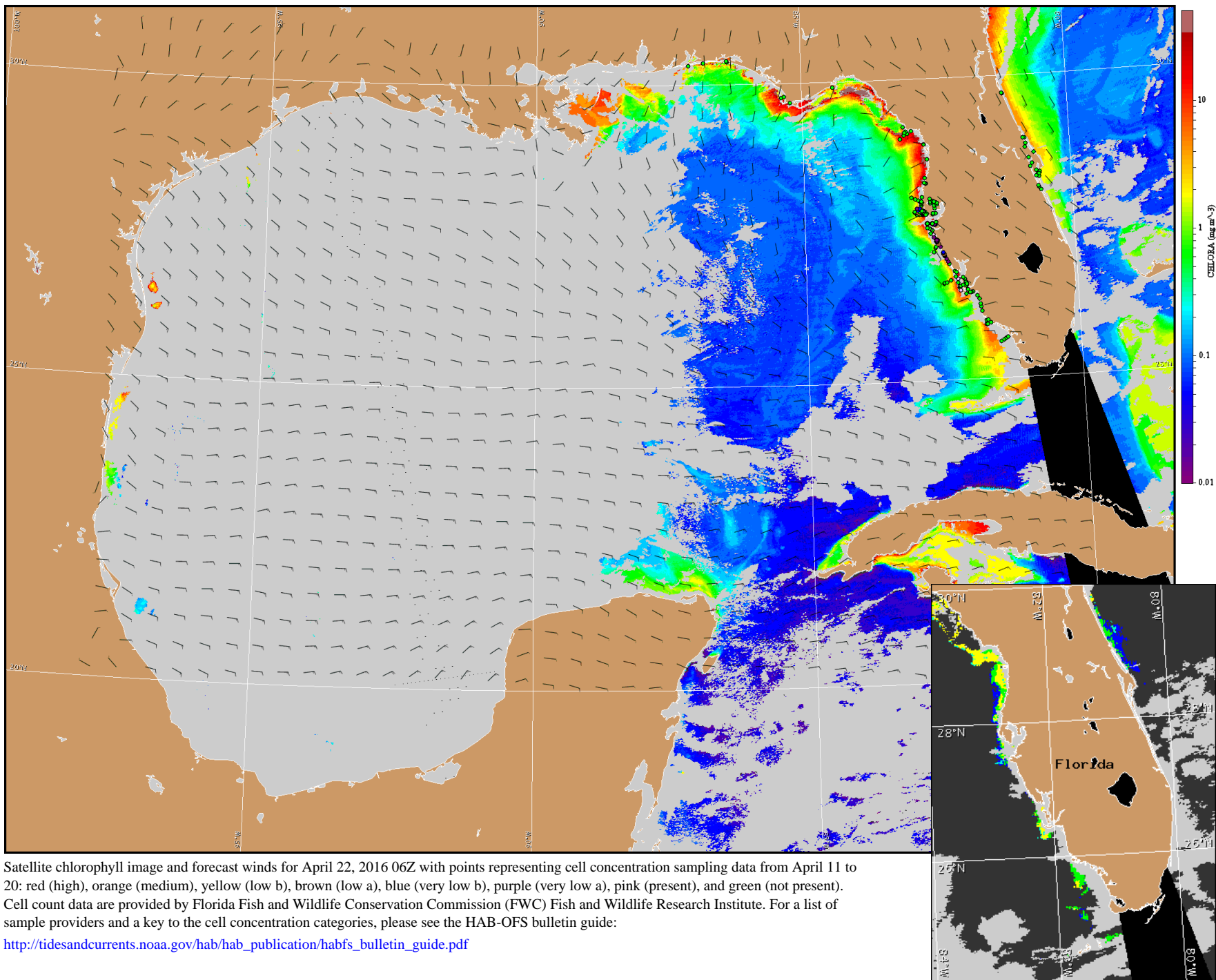
Derner, Davis



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 winds (15kn, 8m/s) today becoming south (5-10kn, 3-5m/s) this afternoon. Northeast winds (5kn, 3m/s) tonight. Southeast winds (10kn, 5m/s) Friday becoming south in the afternoon. West winds (5kn) Friday night. Northwest winds (5-10kn) Saturday. North winds to northwest winds (5-10kn) Sunday. Southeast winds (10kn) Monday.



Satellite chlorophyll image and forecast winds for April 22, 2016 06Z with points representing cell concentration sampling data from April 11 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).