



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

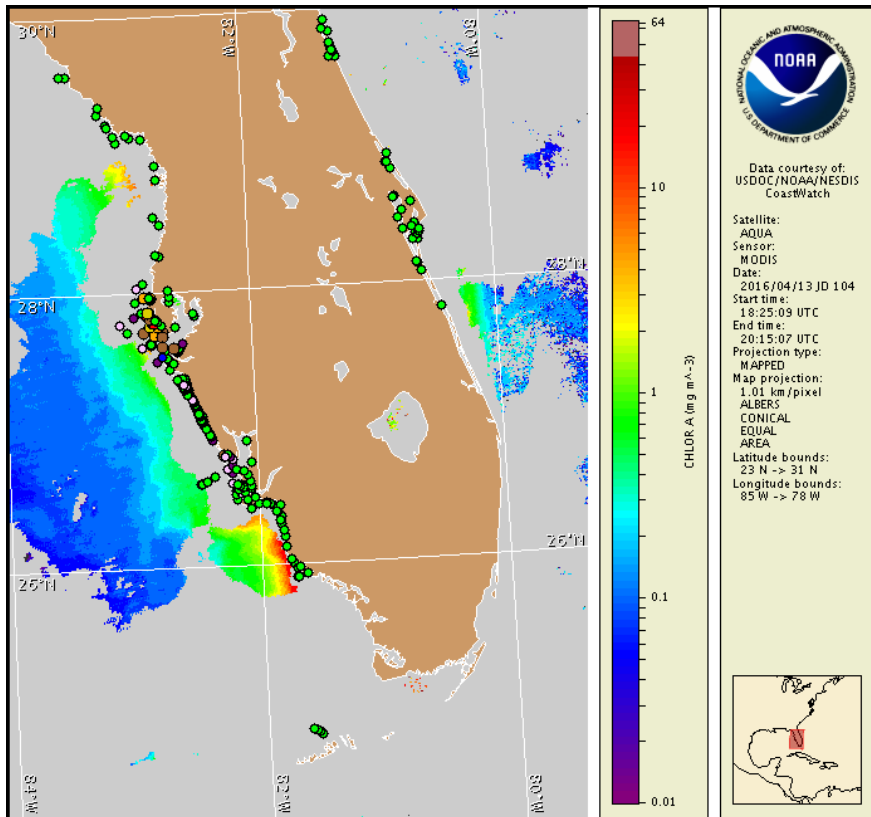
Thursday, 14 April 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, April 11, 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 4 to 13: 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 high 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 14 to Monday, April 18 is listed below:

County Region: Forecast (Duration)

Northern Pinellas: Moderate (Th-F), Very Low (Sa-M)

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

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

Southern Pinellas, bay regions: Moderate (Th-M)

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

Southern Manatee: Very Low (Th-F), None (Sa-M)

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

Northern Sarasota: Very Low (Th-F), None (Sa-M)

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

Southern Sarasota: Very Low (Th-F), None (Sa-M)

Northern Charlotte: Very Low (Th-F), None (Sa-M)

Southern Charlotte, 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. Dead fish and respiratory irritation have been reported in Pinellas County.

Analysis

Karenia brevis ranges from not present to 'high' along- and offshore the coast of southwest Florida from northern Pinellas to northern Lee County (FWRI, MML, SCHD, CCENRD; 4/4-12). Alongshore southern Pinellas County, recent sampling identified 'low b' *K. brevis* concentrations in the Indian Shores ICW, while sampling at Redington Pier indicated a decrease to 'low a' from 'medium' (FWRI; 4/11). New samples received from the Pine Island Sound and Estero Bay regions of Lee County, and alongshore and in the bay regions of Collier County all indicate that *K. brevis* is not present (FWRI, CCENRD; 4/4-12). Dead fish and respiratory irritation continue to be reported from several areas alongshore Pinellas County (FWRI; 4/11-14). 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, 4/13) is obscured by clouds alongshore southwest Florida, limiting analysis. In MODIS Aqua imagery from 4/9 (not shown) patches of elevated chlorophyll (3-7 $\mu\text{g/L}$) with some optical characteristics of *K. brevis* are visible stretching along- and offshore from Pinellas to Manatee counties.

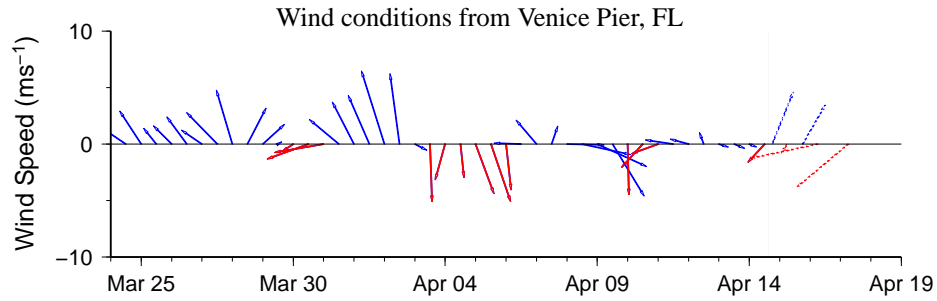
Variable winds observed alongshore southwest Florida over the last several days may have minimized the transport of surface *K. brevis* concentrations at the coast. Variable

and northeast winds forecast today through Monday may continue to minimize the transport of surface *K. brevis* concentrations at the coast.

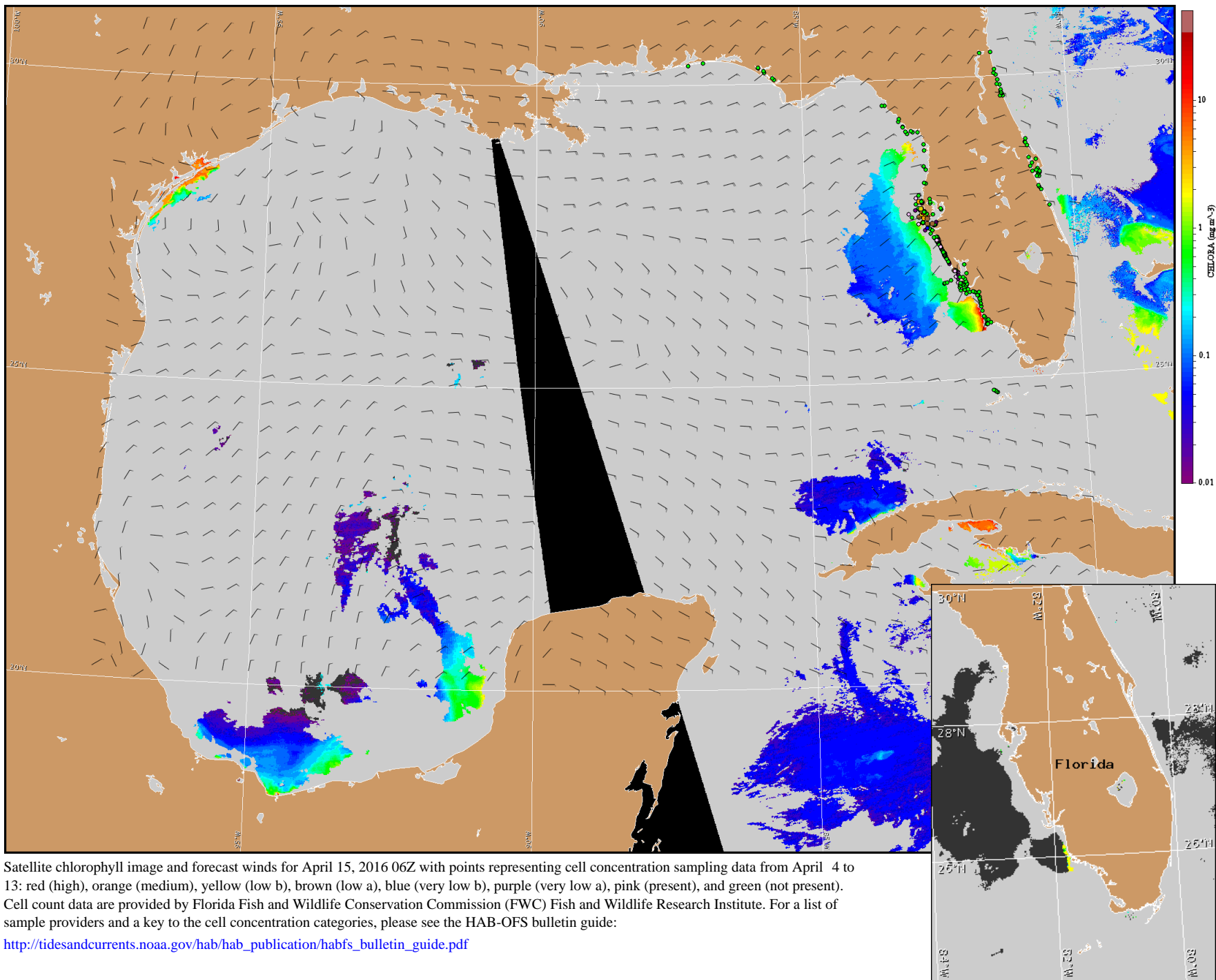
Davis, Derner

Wind Analysis

Englewood to Tarpon Springs (Venice): Variable winds (5-10kn, 3-5m/s) today through Friday. Northeast winds (5-15kn, 3-8m/s) Saturday through 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 15, 2016 06Z with points representing cell concentration sampling data from April 4 to 13: 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).