



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

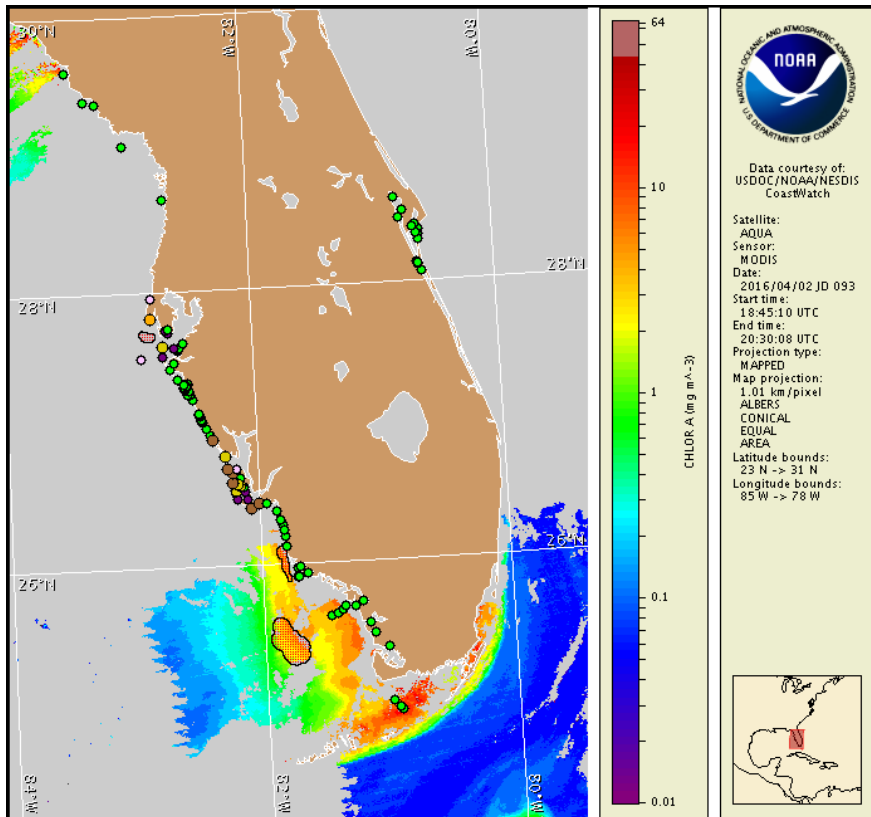
Monday, 04 April 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, March 31, 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 25 to April 1: 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 Monday, April 4 to Thursday, April 7 is listed below:

County Region: Forecast (Duration)

Southern Pinellas: Very Low (M-Tu), Low (W), Moderate (Th)

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

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

Southern Manatee: Very Low (M-Th)

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

Northern Sarasota: Low (M-Th)

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

Southern Sarasota: Low (M-Th)

Northern Charlotte: Very Low (M-W), Low (Th)

Southern Charlotte: Very Low (M-W), Low (Th)

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

Northern Lee: Low (M-Th)

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

Central Lee: Low (M-Th)

Central Lee, bay regions: 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. Respiratory irritation has been reported in Sarasota, Charlotte, and Lee counties. Dead fish have been reported in Lee County.

Analysis

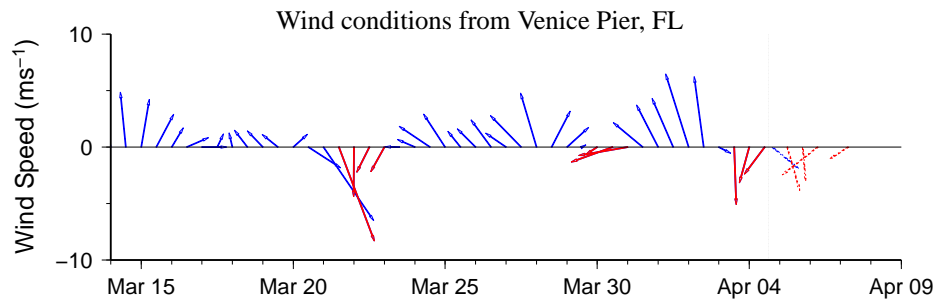
Samples collected last week along- and offshore the coast of southwest Florida from Pinellas to Monroe counties identified not present to 'medium' concentrations of *Karenia brevis* (FWRI, MML, SCHD, CCENRD; 3/25-3/31), with the highest concentrations present alongshore southern Pinellas County (Redington Pier) and at Captiva Pass in northern Lee County (FWRI; 3/28-29). Samples collected along-, off- and inshore of Monroe County, including within the Florida Keys region, all indicated that *K. brevis* is not present (FWRI, MML; 3/18-30). Respiratory irritation has been reported from Venice Beach and Nokomis in Sarasota County, Englewood Beach in Charlotte County, and Captiva and Sanibel islands Lee County (MML; 4/1-2). Dead fish were reported from Bowman's Beach in central Lee County (MML; 4/2). 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, 4/2) is completely obscured by clouds along the coast of southwest Florida, preventing analysis. In MODIS Aqua imagery from 3/31

(not shown), patches of elevated to high chlorophyll (4-17 $\mu\text{g/L}$) with the optical characteristics of *K. brevis* are visible along- and offshore Pinellas, Manatee, Sarasota, and Lee Counties. Large patches of elevated chlorophyll (4-10 $\mu\text{g/L}$) with the optical characteristics of *K. brevis* are also visible extending along- and offshore the coast of Collier County and offshore the coast of Monroe County, centered at approximately 25°27'40.4"N 81°50'12.1"W.

Upwelling favorable winds observed over the past several days may have increased the potential for intensification of *K. brevis* concentrations at the coast. Variable winds forecast alongshore southwest Florida today through Thursday will decrease the potential for transport of surface *K. brevis* concentrations at the coast.

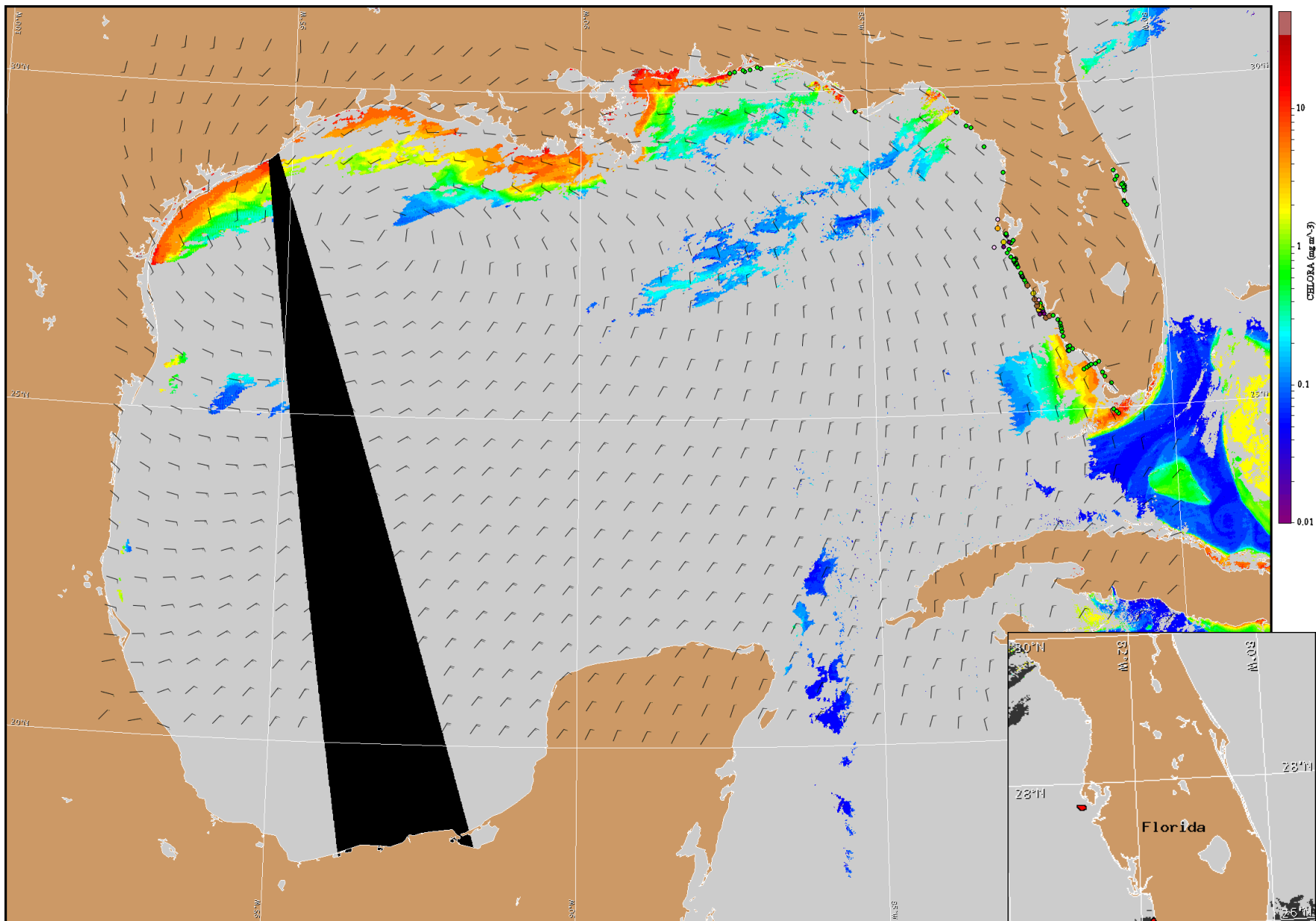
Derner, Davis



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).

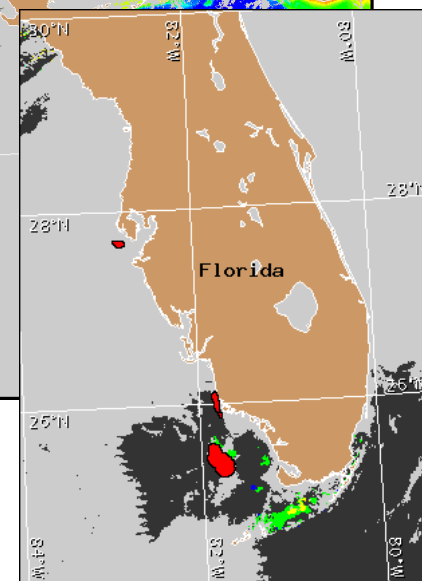
Wind Analysis

Englewood to Tarpon Springs (Venice): Variable northerly winds (5-15kn, 3-8m/s) today through Tuesday. East winds (15kn, 8m/s) Wednesday becoming southeast (5-10kn, 3-5m/s) Wednesday afternoon. Southwest to south winds (5-10kn) Wednesday night and Thursday.



Satellite chlorophyll image and forecast winds for April 5, 2016 06Z with points representing cell concentration sampling data from March 25 to April 1: 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).