



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

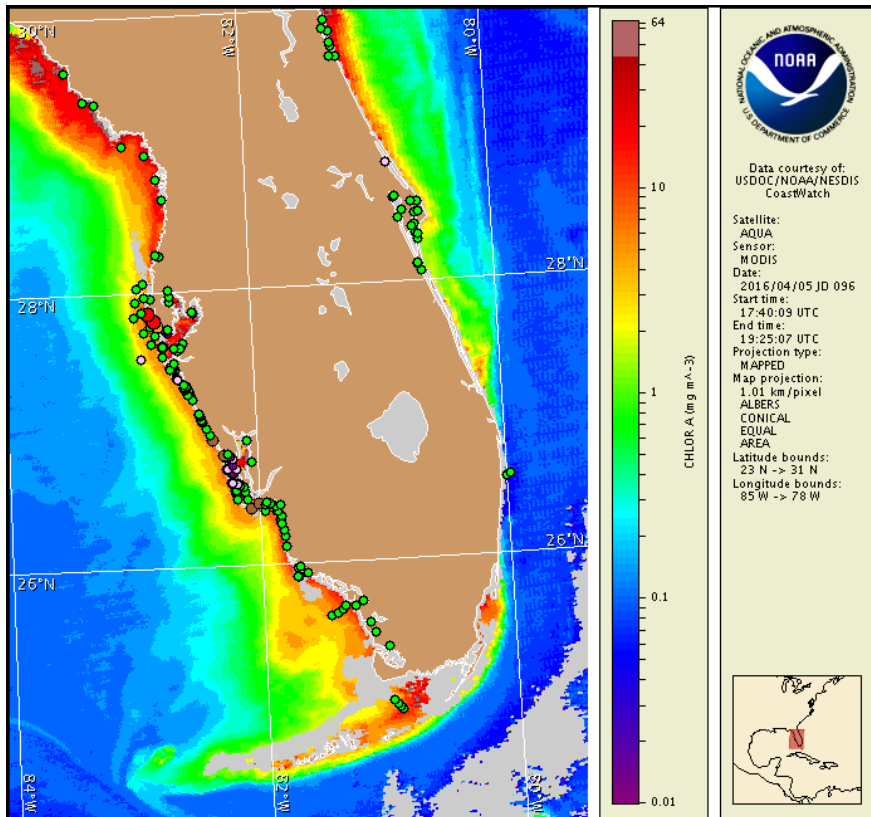
Thursday, 07 April 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, April 4, 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 28 to April 6: 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 7 to Monday, April 11 is listed below:

County Region: Forecast (Duration)

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

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

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

Southern Manatee: Very Low (Th-M)

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

Northern Sarasota: Very Low (Th-M)

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

Southern Sarasota: Very Low (Th-M)

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

Southern Charlotte: Low (Th-F), Very Low (Sa-M)

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

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

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

Central Lee: Low (Th-M)

Central Lee, bay regions: 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

Recent samples collected along-and offshore the coast of southwest Florida from Pinellas to Monroe counties indicate not present to 'high' concentrations of *Karenia brevis* (FWRI, MML, SCHD, CCENRD; 3/28-4/5), with two 'high' *K. brevis* concentrations identified alongshore southern Pinellas County on 4/5 (FWRI). Additional sampling indicated decreased concentrations within the Pine Island Sound and Gasparilla Sound regions of Lee and Charlotte counties, with background to 'low a' concentrations collected where up to 'medium' concentrations had previously been identified (FWRI; 4/4). Samples collected offshore southern Lee County indicated that *K. brevis* is not present (FWRI; 4/2). Dead fish and respiratory irritation have been reported from Redington Beach to Madeira Beach (FWRI; 4/5). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: <http://myfwc.com/redtidestatus>.

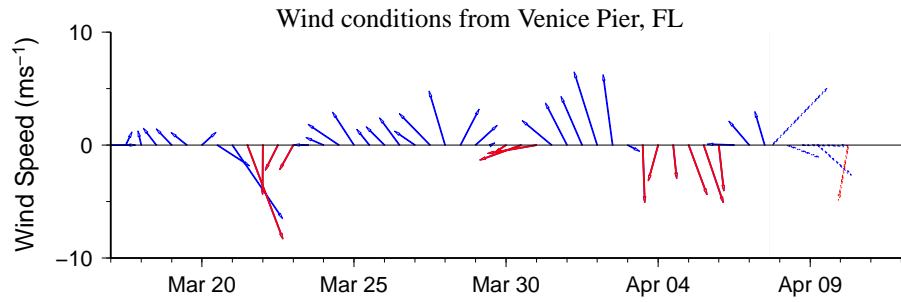
In recent ensemble imagery (MODIS Aqua, 4/5), patches of elevated chlorophyll (3-10 $\mu\text{g/L}$) with some optical characteristics of *K. brevis* are visible stretching along- and offshore from Pinellas to Charlotte counties.

Upwelling favorable winds observed over the past several days may have increased the potential for intensification of *K. brevis* concentrations at the coast. Winds forecast along-shore southwest Florida today through Sunday may promote southerly transport of surface *K. brevis* concentrations at the coast.

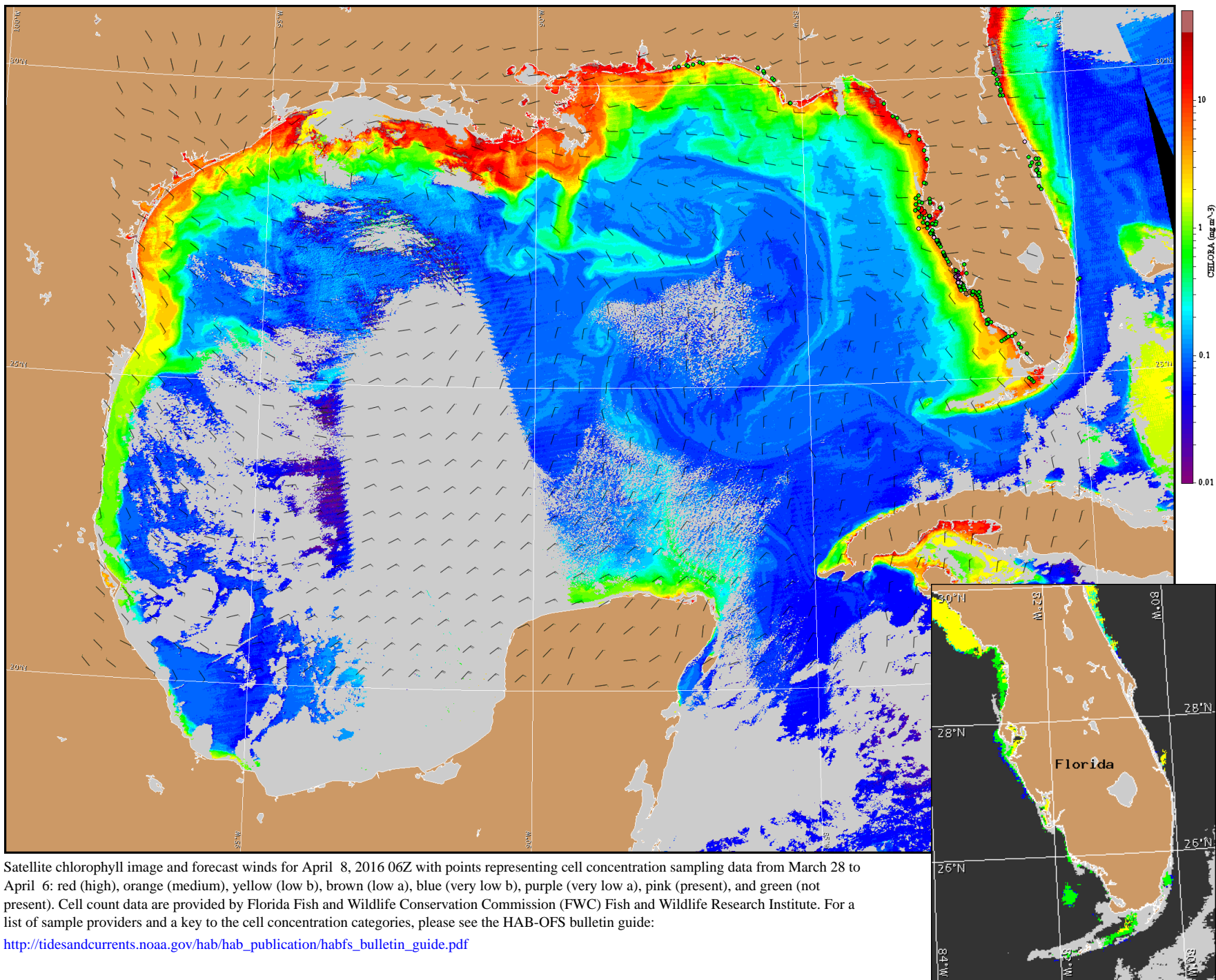
Wind Analysis

Englewood to Tarpon Springs (Venice): Southwest winds (10kn, 5m/s) today becoming northwest (10-20kn, 5-10m/s) tonight through Saturday night. Northeast winds (5-15kn, 3-8m/s) Sunday becoming east (15kn, 8m/s) overnight into Monday.

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).



Satellite chlorophyll image and forecast winds for April 8, 2016 06Z with points representing cell concentration sampling data from March 28 to April 6: 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).