



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

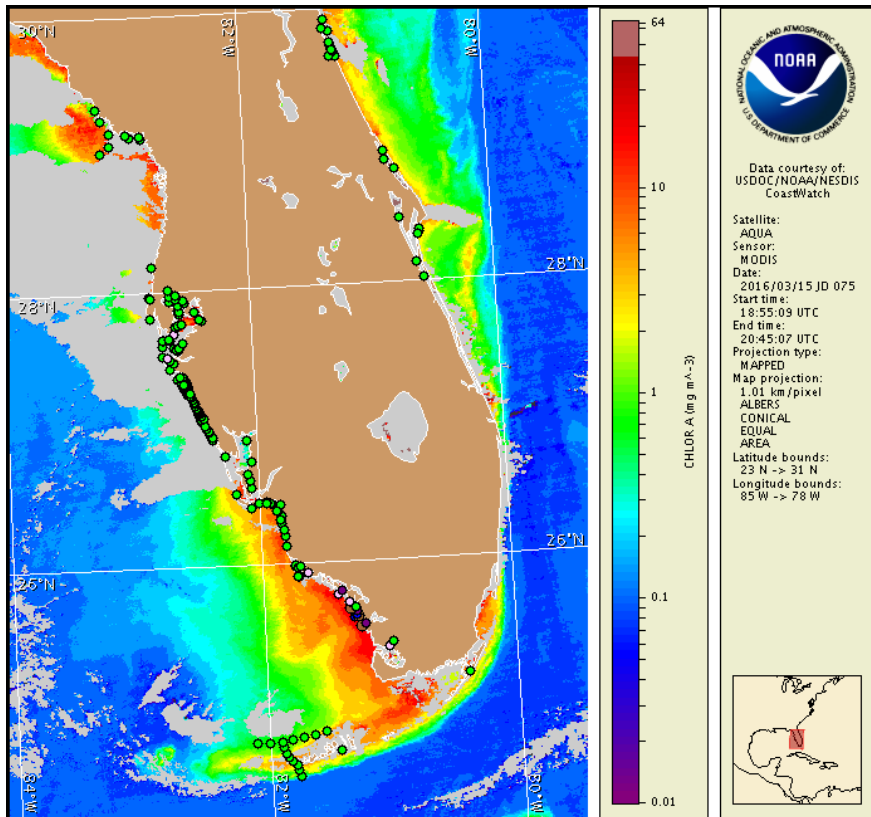
Thursday, 17 March 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, March 14, 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 7 to 15: 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

Karenia brevis (commonly known as Florida red tide) ranges from not present to 'low a' concentrations along the coast of southwest Florida and is not present offshore 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, March 17 to Monday, March 21 is listed below:

County Region: Forecast (Duration)

Northern Monroe: Low (Th-Su), Very Low (M)

Southern Monroe: Low (Th-Su), Very Low (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. No respiratory irritation or fish kills have been reported over the last few days.

Analysis

Recent samples collected along-and offshore southwest Florida indicate that *Karenia brevis* concentrations range from not present to 'low a' from Pinellas to Monroe counties, with the highest concentrations present at Bird Key and Plover Key in the Ten Thousand Islands Region of northern Monroe County (FWRI; 3/7-3/16). Up to background concentrations of *K. brevis* are present in Pinellas, Manatee and Collier counties (FWRI; 3/8-3/15). 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, 3/15) is partially obscured by clouds from south of Pasco County to central Lee County, limiting analysis in this region. High chlorophyll (2 to 20 $\mu\text{g/L}$) is visible along- and offshore southwest Florida from Collier to Monroe counties.

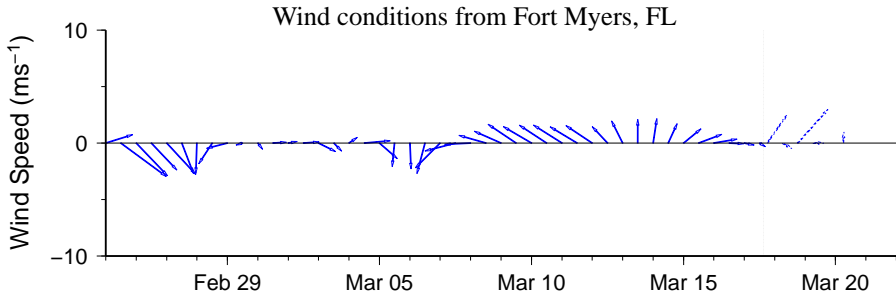
South to southwest winds forecasted alongshore southwest Florida today through Saturday may promote northerly transport of *K. brevis* concentrations alongshore southwest Florida.

Keeney, Davis

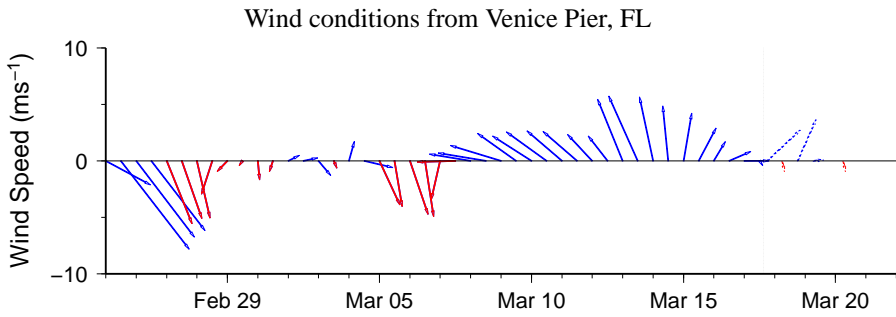
Wind Analysis

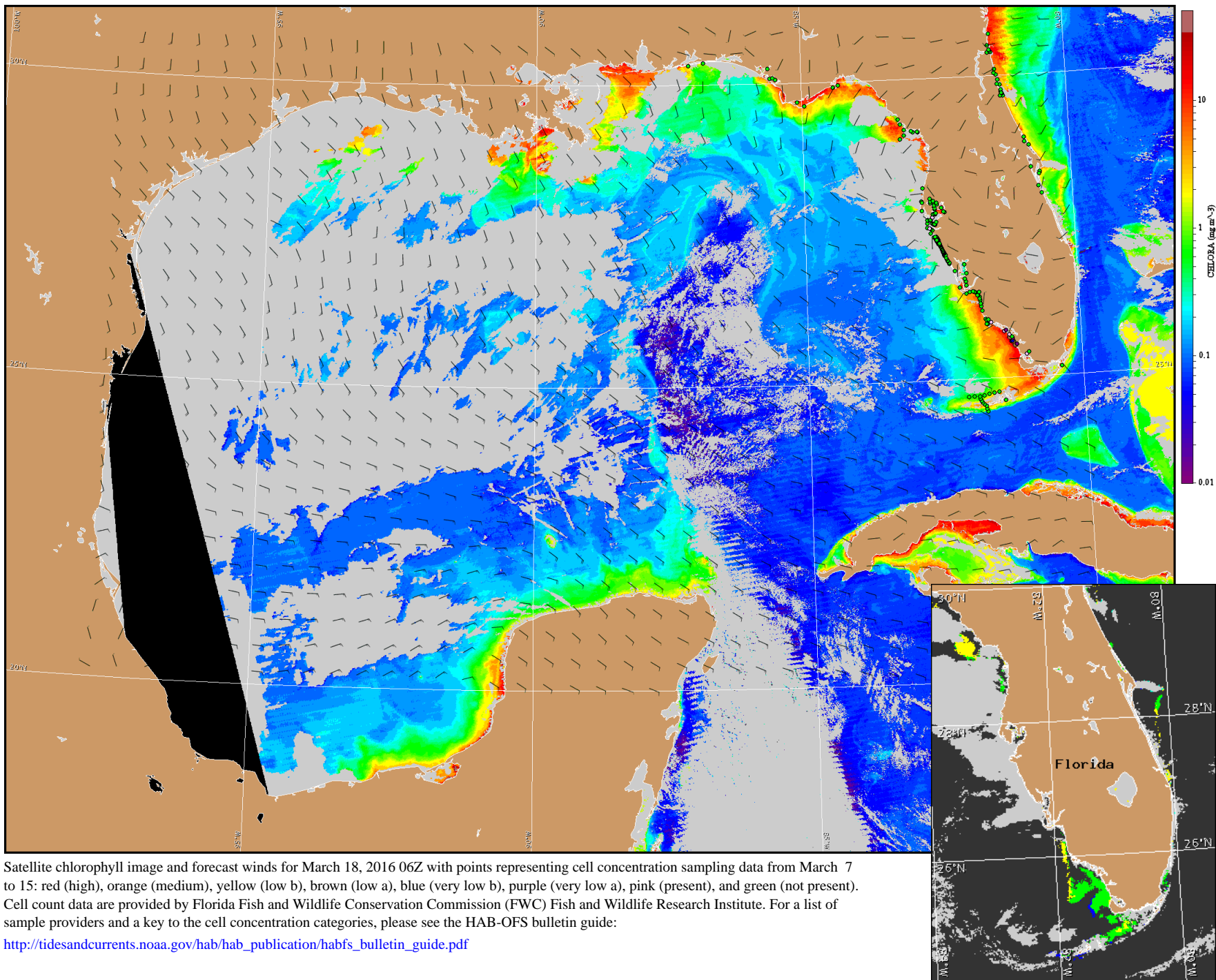
Chokoloskee to Bonita Beach: East southeast winds (5kn, 3m/s) today shifting to south winds (5kn) tonight. South to southeast winds (5-10kn, 3-5m/s) Friday and Saturday becoming west southwest winds (5-10kn) Saturday evening. North to northwest winds (10-20kn, 5-10m/s) Sunday and Monday.

Englewood to Tarpon Springs (Venice): Variable southerly and westerly winds (5-10kn) today through Saturday. Northwest winds (5-15kn, 3-8m/s) Sunday. North winds (15kn, 8m/s) 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 March 18, 2016 06Z with points representing cell concentration sampling data from March 7 to 15: 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).