

Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

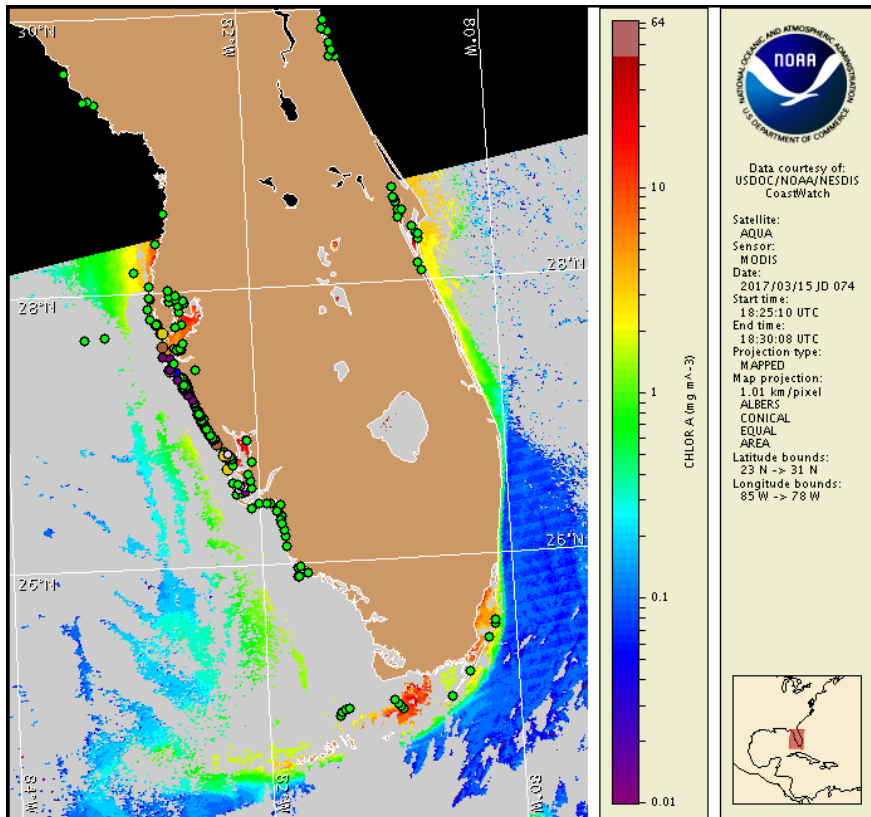
Thursday, 16 March 2017

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, March 13, 2017



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from March 6 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

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, March 16 through Monday, March 20 is listed below:

County Region: Forecast (Duration)

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

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

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

Southern Manatee: Low (Th-M)

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

Northern Sarasota: Low (Th-M)

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

Southern Sarasota: Low (Th-M)

Northern Charlotte: Very Low (Th-M)

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

Southern Charlotte: Low (Th-M)

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

Northern Lee: Low (Th-M)

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

Central Lee: Low (M-Tu), Very Low (Th-M)

Central Lee, Bay regions: Very Low (Th-M)

All Other SWFL County Regions: None expected (Th-M)

Check https://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 https://tidesandcurrents.noaa.gov/hab/hab_health_info.html. Over the past few days, there have been no reports of respiratory irritation. Reports of dead fish have been received from Lee County.

Analysis

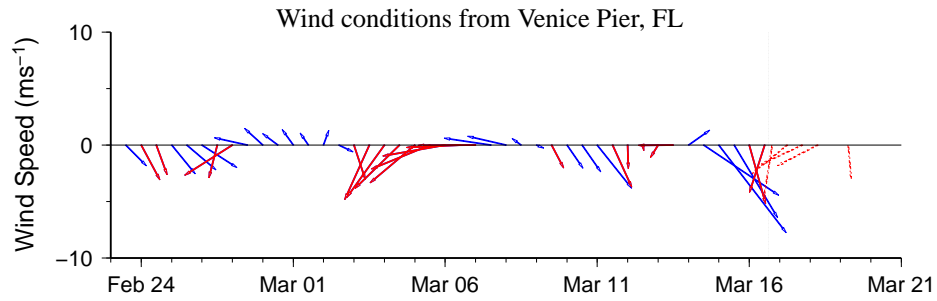
Recent samples collected alongshore the coast of southwest Florida from Pinellas to Collier counties identify not present to 'medium' concentrations of *Karenia brevis*, with 'medium' concentrations newly identified near Saint Petersburg Beach alongshore southern Pinellas County, and at Gasparilla Pass in the bay regions of southern Charlotte County (FWRI, MML, SCHD, CCPCD; 3/6-3/15). 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 completely obscured by clouds alongshore southwest Florida, preventing analysis. In previous ensemble imagery (MODIS Aqua, 3/11; not shown) patches of elevated chlorophyll (2-7 $\mu\text{g/L}$) with some of the optical characteristics of *K. brevis* were visible alongshore southern Pinellas to Lee counties.

Variable winds forecasted Thursday through Monday may minimize the potential for

respiratory irritation at the coast and may promote the potential for southerly transport of surface *K. brevis* concentrations alongshore southwest Florida.

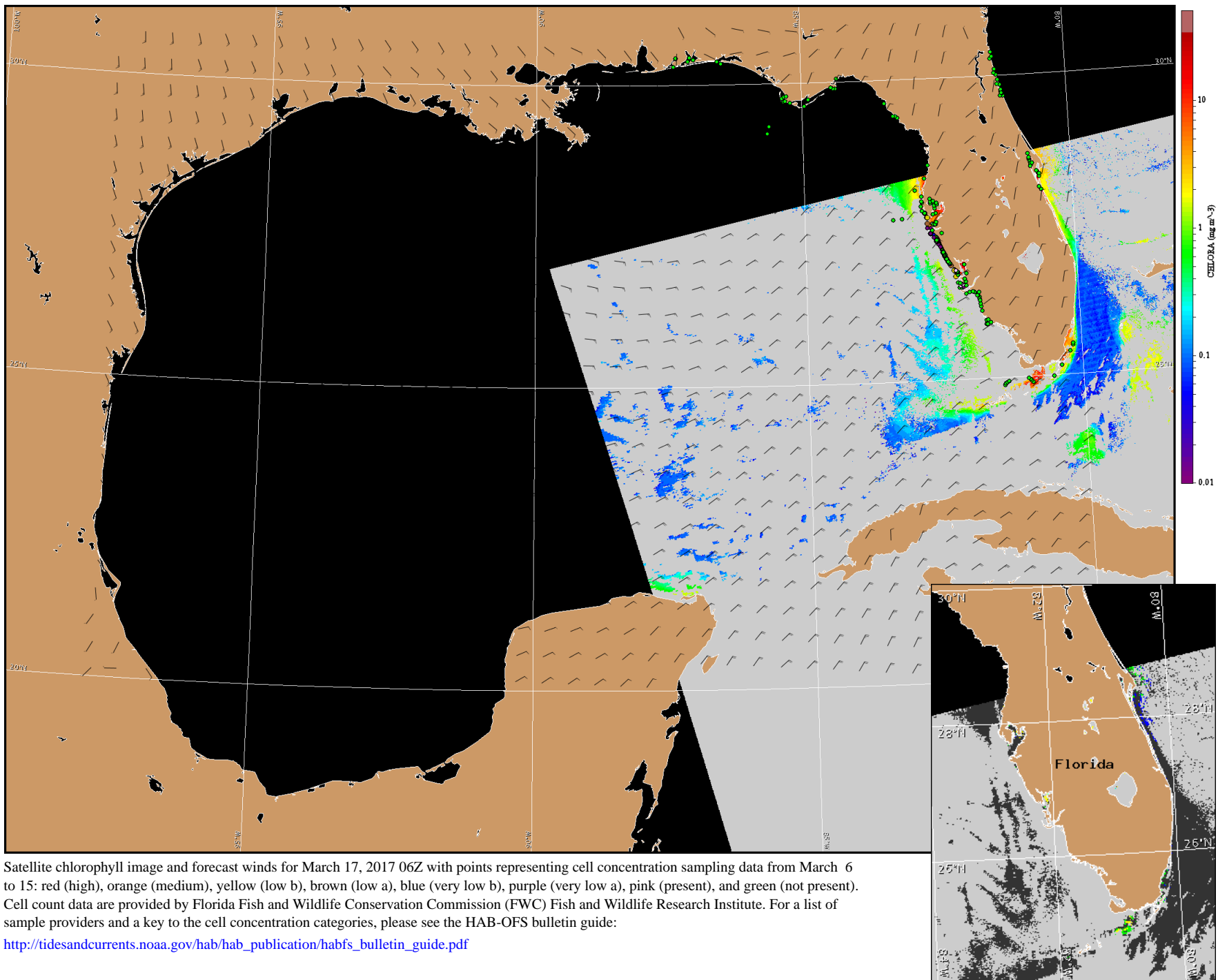
Ludema, Keeney



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): North to northeast winds (15kn, 8m/s) through Friday morning diminishing to (5-10kn, 3-5m/s) Friday night. East winds (10-15kn, 5-8m/s) Saturday becoming northwest winds through Saturday night. North to northeast winds (10-15kn) Sunday through Monday.



Satellite chlorophyll image and forecast winds for March 17, 2017 06Z with points representing cell concentration sampling data from March 6 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).