



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

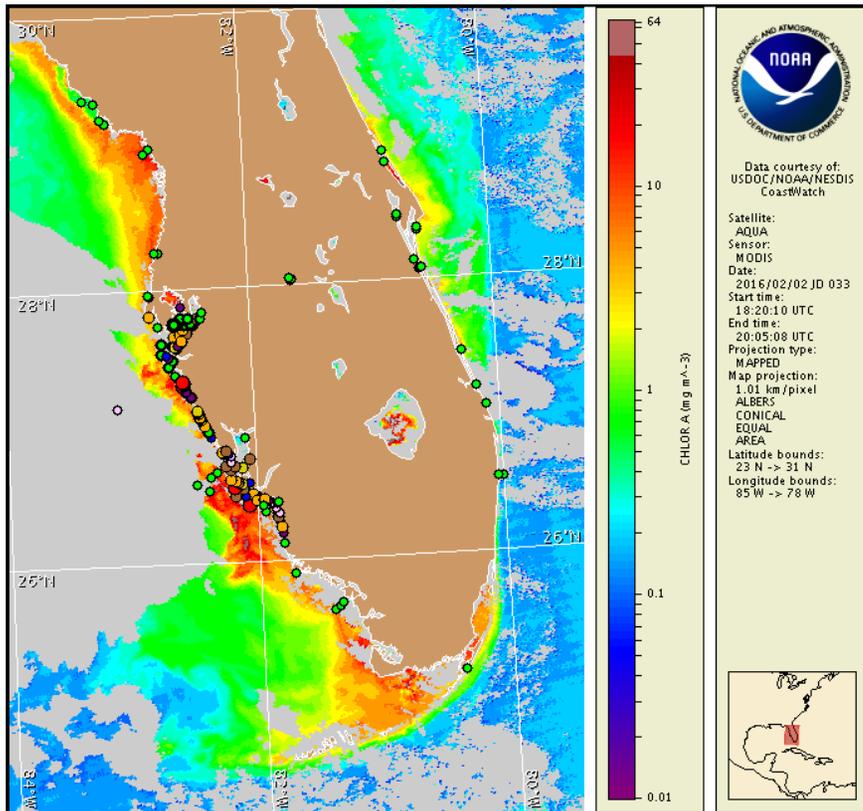
Thursday, 04 February 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, February 1, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from January 25 to February 3: 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 high concentrations along the coast of southwest Florida, and is 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, February 4 through Monday, February 8 is listed below:

County Region: Forecast (Duration)

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

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

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

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

Southern Manatee: Low (Th-M)

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

Northern Sarasota: High (Th, M), Moderate (F-Su)

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

Southern Sarasota: Moderate (Th-M)

Northern Charlotte: Low (Th-M)

Southern Charlotte: Very Low (Th-M)

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

Northern Lee: Low (Th-M)

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

Central Lee: High (Th), Moderate (F-M)

Central Lee, bay regions: High (Th-M)

Southern Lee: Moderate (Th-M)

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

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

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. Respiratory irritation and dead fish have been reported in Sarasota, Charlotte, and Lee counties. Respiratory irritation has also been reported in Manatee County.

Analysis

Recent samples collected along-and offshore southwest Florida indicate background to 'high' *Karenia brevis* concentrations from Pinellas to northern Collier counties (FWRI, MML, SCHD, CCENRD; 1/25-2/2). Samples collected earlier this week indicate that the bloom has pushed further southward, with 'very low a' to 'medium' *K. brevis* concentrations identified alongshore northern Collier County (FWRI; 2/1). Not present to 'medium' *K. brevis* concentrations continue to be identified alongshore and within the bay regions of Pinellas, Manatee, Sarasota, Charlotte, and Lee counties, with one 'high' concentration identified alongshore the bay side at the north end of Captiva Island in north/central Lee County (FWRI; 2/1-2). While the most recent samples collected in Sarasota County indicate that *K. brevis* concentrations decreased in several locations, respiratory irritation continues to be reported (SCHD; 2/1). Slight to moderate respiratory

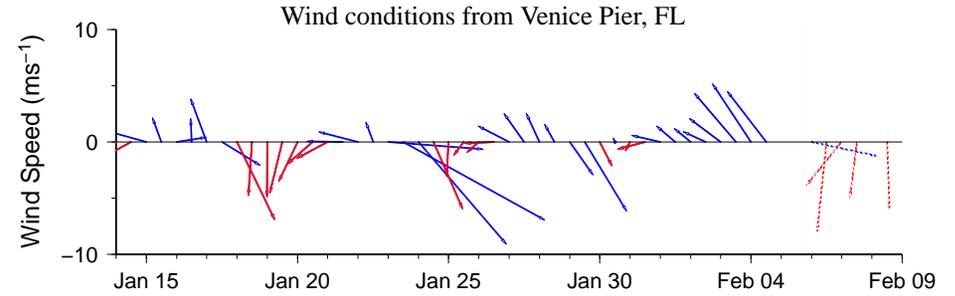
irritation has been reported over the last several days from Longboat Key in Manatee County; Lido Key, Siesta Key, Nokomis, Venice North Jetty, Venice Beach, and Manasota Beach in Sarasota County; and Sanibel Island in Lee County (MML; 1/30-2/4). Dead fish have been reported from Nokomis and Manasota Beach in Sarasota County, Englewood Beach in Charlotte County, and Sanibel Island in Lee County (FWRI, MML; 1/30-2/4). 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, 2/2) is partially obscured by clouds in patches along- and offshore portions of southwest Florida, limiting analysis. Patches of elevated to high chlorophyll (3-20 $\mu\text{g/L}$) are visible along- and offshore Sarasota, Lee, and Collier counties, with several small patches of very high chlorophyll (>20 $\mu\text{g/L}$) visible offshore Lee and Collier counties.

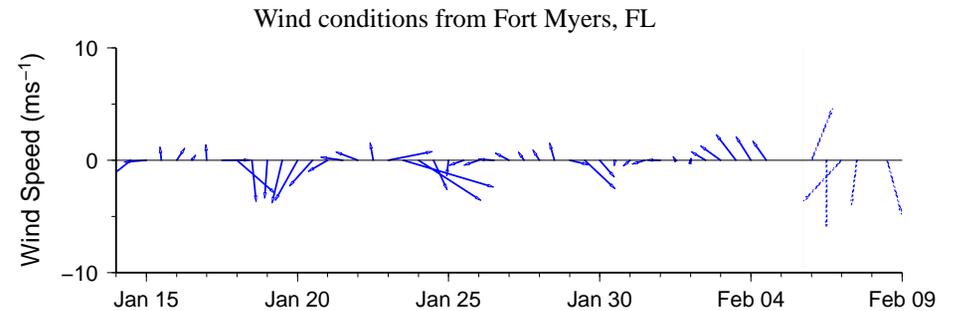
Steady northerly winds forecast tonight through Monday may increase the potential for southerly transport of surface *K. brevis* concentrations alongshore southwest Florida.

Derner, Lalime

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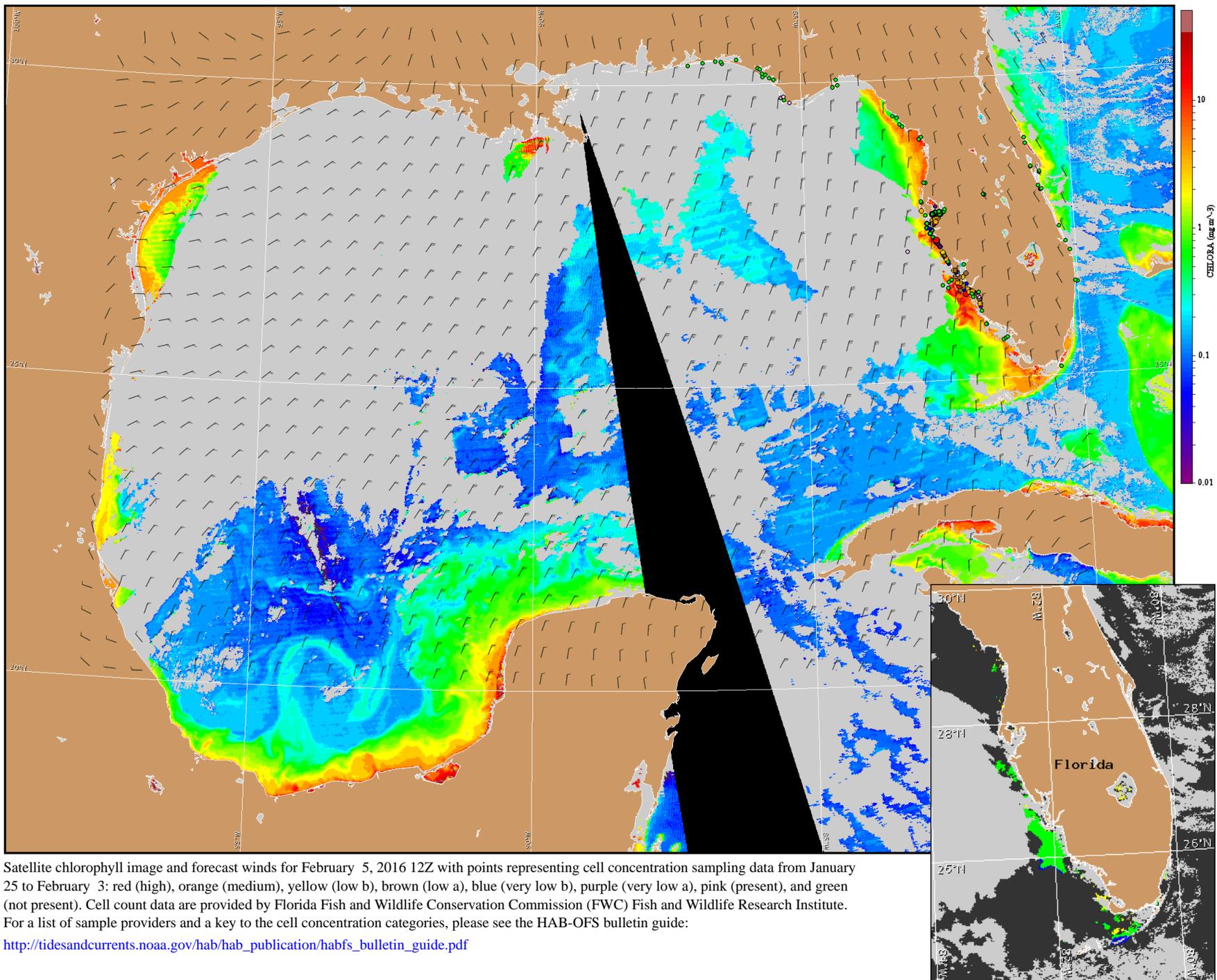
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).



Wind Analysis

Englewood to Tarpon Springs (Venice): South winds (15kn, 8m/s) today becoming north (20-25kn, 10-13m/s) tonight through Friday. Northeast winds (20kn, 10m/s) Friday night. North winds (15kn, 8m/s) Saturday through Sunday. Northwest winds (5-15kn, 3-8m/s) Sunday night through Monday.

Bonita Beach to Englewood (Ft. Myers): South winds (15kn) today becoming west (20-25kn) tonight. North to northeast winds (20-25kn) Friday becoming north (15kn) Saturday through Sunday. Northwest to north winds (5-15kn) Sunday night through Monday.



Satellite chlorophyll image and forecast winds for February 5, 2016 12Z with points representing cell concentration sampling data from January 25 to February 3: 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

Verified and suspected HAB areas shown in red. Other areas with *K. brevis* optical characteristics shown in yellow (see p. 1 analysis for interpretation).