



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

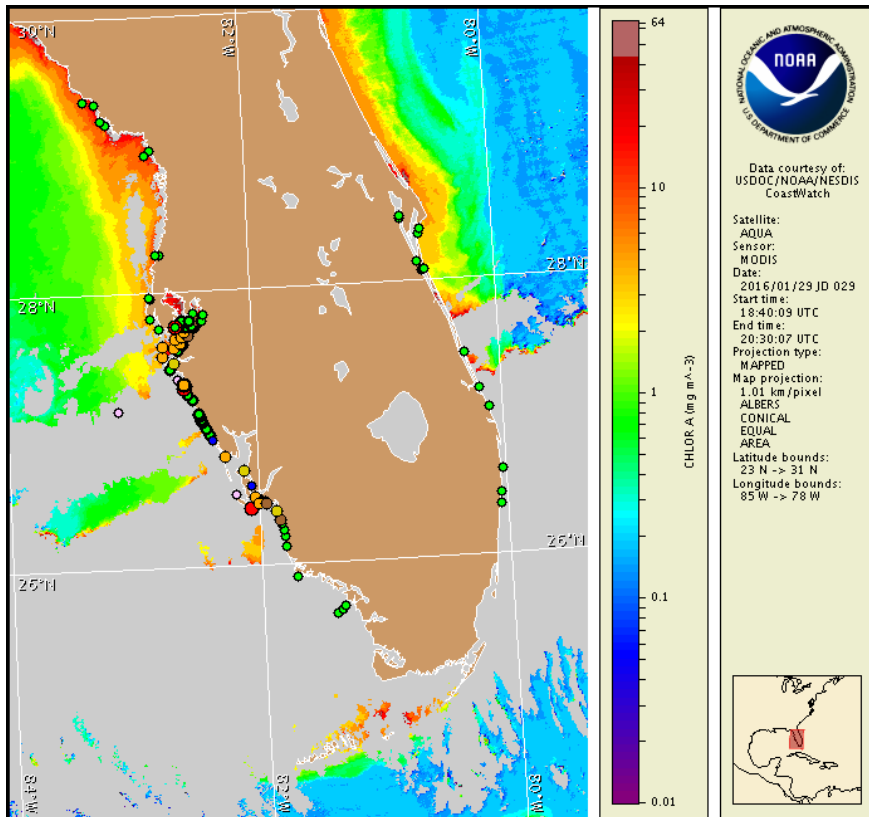
Monday, 01 February 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, January 28, 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 22 to 29: 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](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 Monday, February 1 through Thursday, February 4 is listed below:

**County Region: Forecast (Duration)**

**Southern Pinellas: Moderate (M-Th)**

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

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

**Southern Manatee: Low (M-Th)**

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

**Northern Sarasota: High (M-Th)**

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

**Southern Sarasota: Moderate (M, W-Th), Low (Tu)**

**Northern Charlotte: Very Low (M-Th)**

**Southern Charlotte: Very Low (M-Th)**

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

**Northern Lee: Low (M-Th)**

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

**Central Lee: High (M-Th)**

**Central Lee, bay regions: Moderate (M-Th)**

**Southern Lee: Moderate (M, W-Th), Low (Tu)**

**Southern Lee, bay regions: Low (M-Th)**

**Northern Collier: Low (M-Th)**

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

Check [http://tidesandcurrents.noaa.gov/hab/beach\\_conditions.html](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](http://tidesandcurrents.noaa.gov/hab/hab_health_info.html). Respiratory irritation has been reported in Sarasota County. Dead fish have been reported in Sarasota and Lee counties.

## Analysis

Recent samples collected along-and offshore southwest Florida indicate background to 'high' *Karenia brevis* concentrations from Pinellas to northern Collier counties, with the highest concentrations identified within the bay regions of southern Pinellas County, alongshore and within the bay regions of northern Sarasota County, and alongshore Sanibel Island in central Lee County (FWRI; 1/27-28). *K. brevis* concentrations continue to be identified further south, with 'low a' to 'low b' concentrations identified alongshore southern Lee County and 'medium' concentrations identified 10 miles offshore northern Collier (FWRI; 1/21-1/27). Slight to intense respiratory irritation has been reported over the last several days from Venice North Jetty, Nokomis, and Lido Key in Sarasota County (MML; 1/29-1/31). Dead fish have been reported at Nokomis in Sarasota County and along Sanibel Island in Lee County (FWRI; 1/27-30). 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, 1/29) is completely obscured by clouds along- and offshore much of southwest Florida, limiting analysis at this time. In MODIS Aqua imagery from 1/25 (not shown), patches of elevated to high chlorophyll (4 to >20  $\mu\text{g/L}$ ) were visible along- and offshore Sarasota to Collier counties, extending up to 22 miles from the coast.

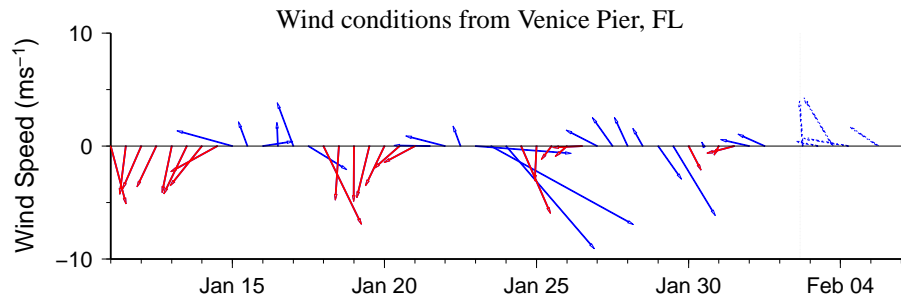
Steady southerly winds forecast today through Thursday may increase the potential for northerly transport of surface *K. brevis* concentrations alongshore southwest Florida.

Derner, Lalime

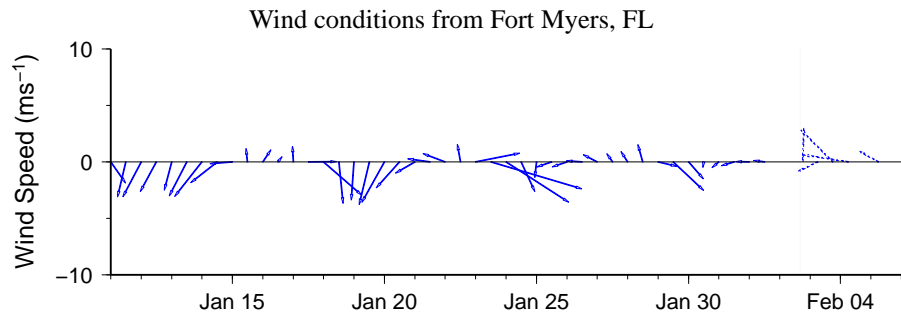
## Wind Analysis

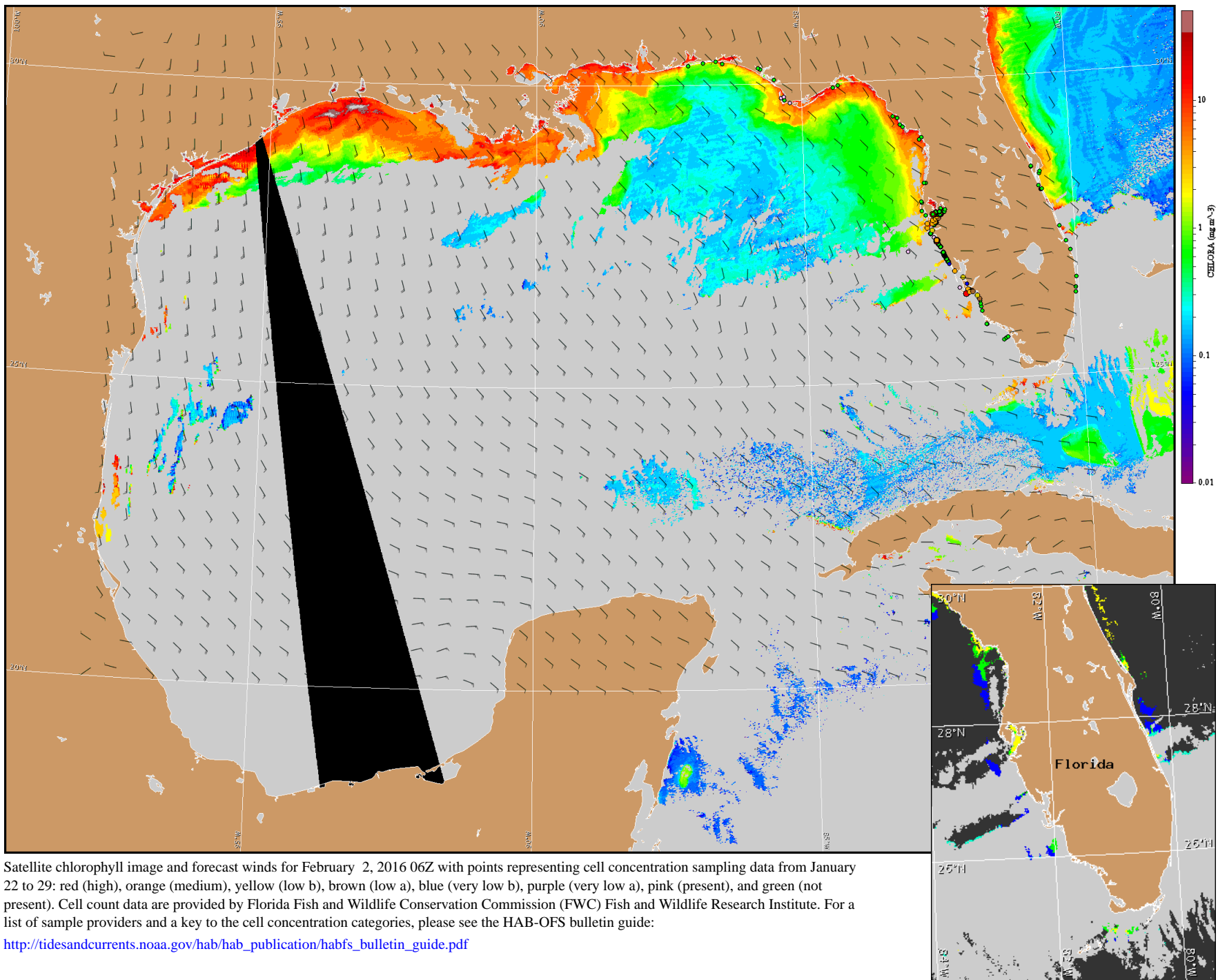
**Englewood to Tarpon Springs (Venice):** Southeast to south winds (5kn, 3m/s) today becoming southeast (5-15kn, 3-8m/s) tonight through Wednesday. South winds (5-10kn, 3-5m/s) Wednesday afternoon through Thursday.

**Bonita Beach to Englewood (Ft. Myers):** Southeast winds (5-15kn) today through Thursday.



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 February 2, 2016 06Z with points representing cell concentration sampling data from January 22 to 29: 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).