



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

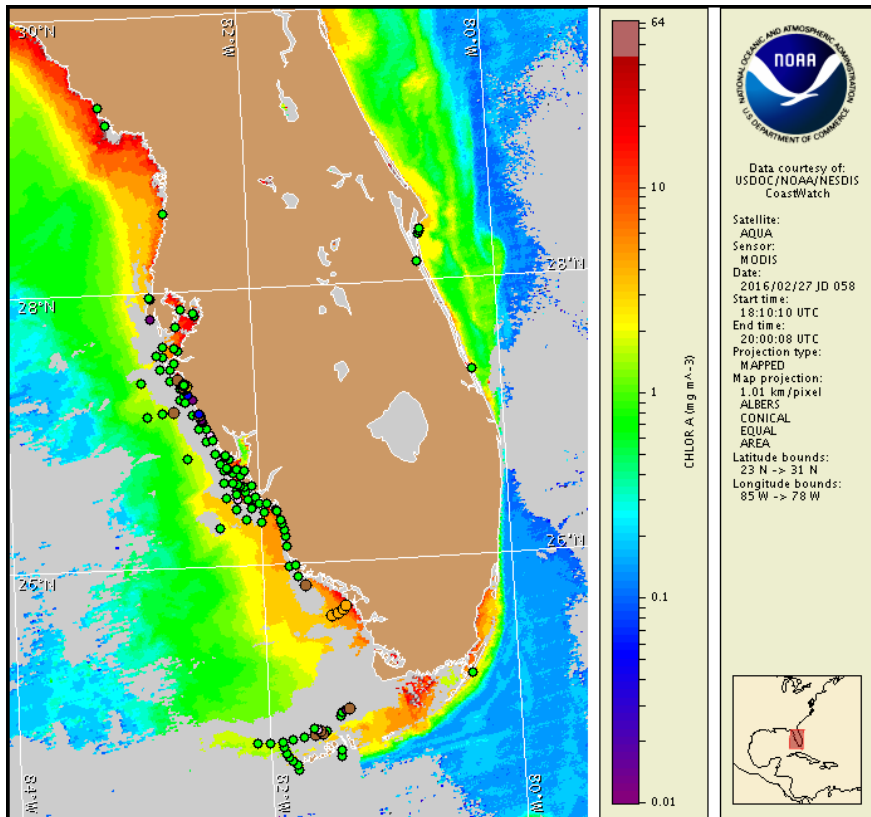
Monday, 29 February 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, February 25, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from February 19 to 26: 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 medium concentrations along the coast of southwest Florida and offshore of 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 29 through Thursday, March 3 is listed below:

**County Region: Forecast (Duration)**

**Northern Sarasota:** Low (M-W), Very Low (Th)

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

**Southern Sarasota:** Very Low (M-W), None (Th)

**Central Collier:** Very Low (M, Tu, Th), Low (W)

**Northern Monroe:** Very Low (M), Low (Tu-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 and dead fish have been reported in Sarasota County. Dead fish have been reported in Collier County.

## Analysis

Recent samples collected along-and offshore southwest Florida indicate background to 'medium' *Karenia brevis* concentrations from southern Pinellas to northern Monroe counties and up to 'low a' concentrations offshore the Florida Keys (FWRI, MML; 2/20-26). Recent sampling indicated that *K. brevis* is present along- and offshore of northern Monroe County with up to 'medium' *K. brevis* concentrations detected near Pavilion Key and extending up to 9 miles offshore (FWRI; 2/23). Offshore the lower Florida Keys, new sampling continues to indicate not present to 'low a' *K. brevis* concentrations approximately 3-7 miles north of Sawyer Keys (FWRI; 2/23-24). Along- and offshore southwest Florida from Pinellas to Collier Counties, recent sampling continues to indicate a decrease in *K. brevis*, with not present to 'low b' concentrations detected (FWRI; 2/20-24). Over the last few days respiratory irritation and dead fish have been reported from various locations in Sarasota County and dead fish have been reported in Collier County (FWRI, MML; 2/25-29). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: <http://myfwc.com/redtidestatus>.

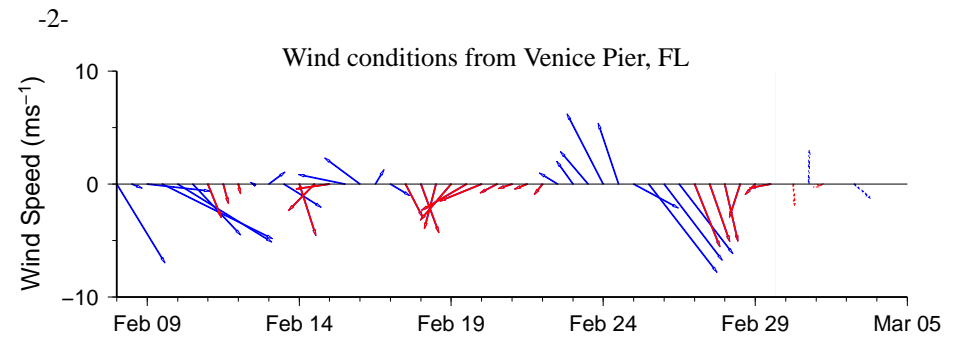
Recent ensemble imagery (MODIS Aqua, 2/27) did not indicate the presence of chlorophyll anomalies with the optical characteristics of *K. brevis* alongshore southwest Florida from Pinellas to Collier counties where recent sampling continues to indicate that *K. brevis* concentrations are decreasing. Recent ensemble imagery along- and offshore from southern Collier County to the Florida Keys has been obscured by clouds, preventing analysis.

Predominantly light and variable winds forecast alongshore southwest Florida today through Thursday may minimize the potential for transport of surface *K. brevis*

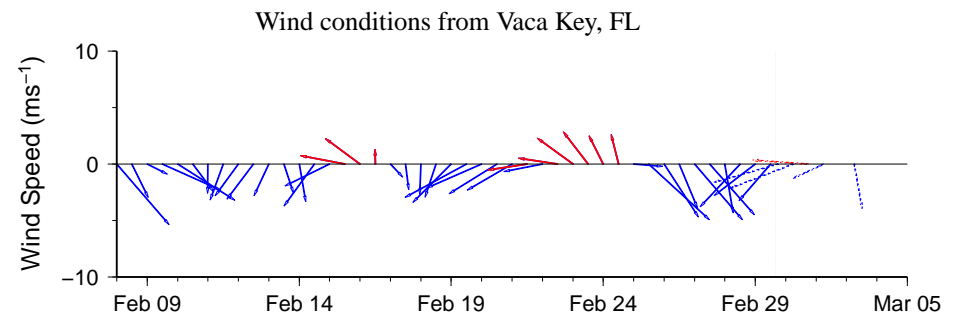
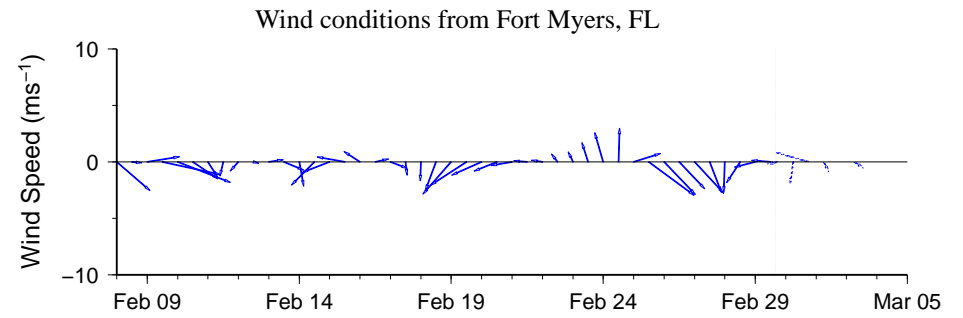
concentrations at the coast. Northeast to east winds forecast today through Thursday along the Florida Keys may promote the potential for westerly transport of surface *K. brevis* concentrations offshore of the lower Keys.

Davis, Keeney

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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).

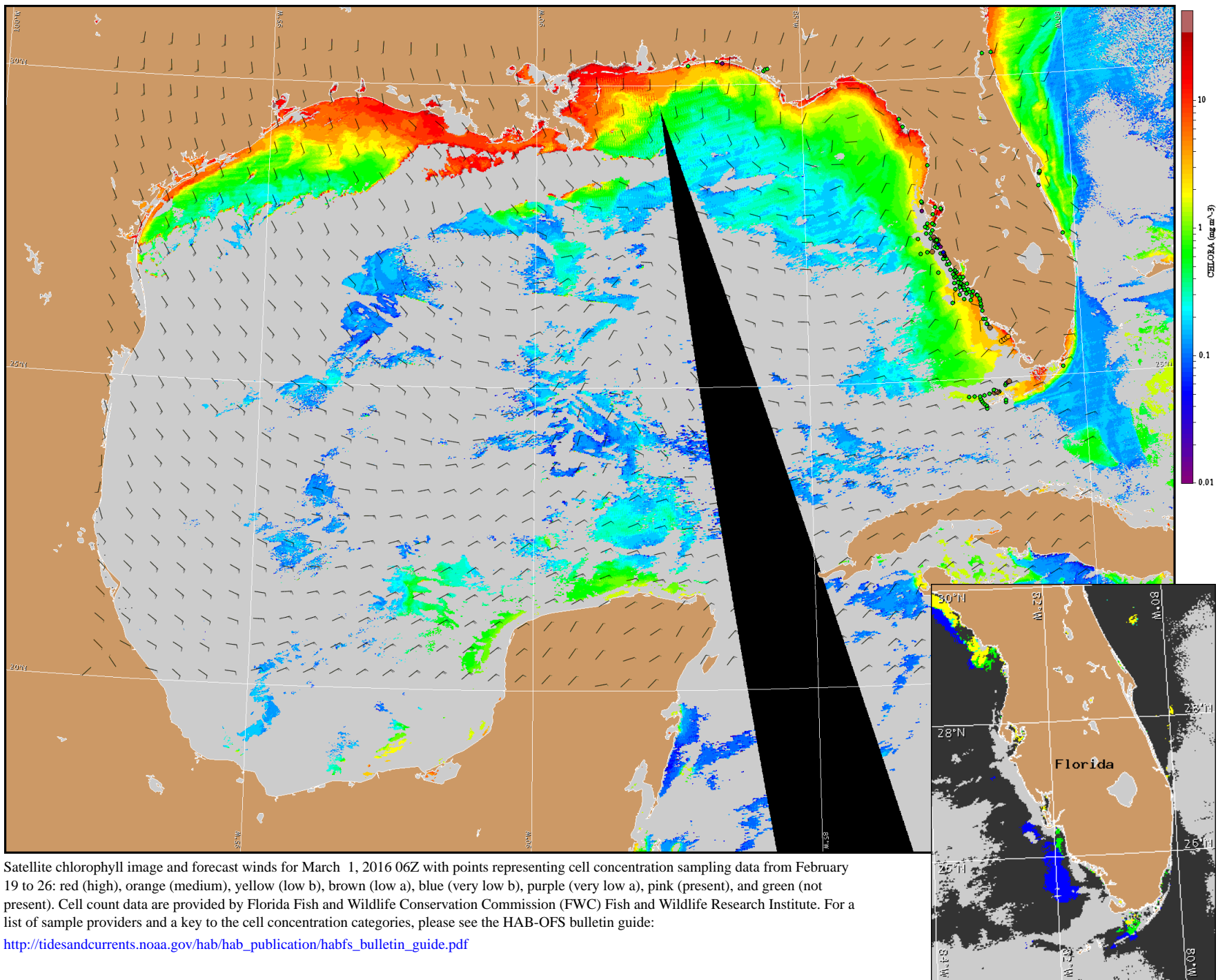


## Wind Analysis

**Englewood to Tarpon Springs (Venice):** Variable winds (5-10kn, 3-5m/s) today through Thursday.

**Chokoloskee to Bonita Beach:** East to northeast winds (5-10kn) today through Tuesday becoming south winds Tuesday afternoon then north northeast winds (5kn, 3m/s) Tuesday night. Northwest to north northwest winds (5-10kn) Wednesday. North northeast winds (10kn, 5m/s) Thursday becoming south southwest (5kn) in the evening then variable Thursday night.

**Gulf of Mexico From West End of Seven Mile Bridge to Halfmoon Shoal:** Northeast to east winds (10-15kn, 5-8m/s) today through Tuesday. Northwest to north winds (10-15kn) Wednesday. Northeast winds (10-15kn) Thursday becoming southeast winds (5-10kn) in the evening.



Satellite chlorophyll image and forecast winds for March 1, 2016 06Z with points representing cell concentration sampling data from February 19 to 26: 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).