



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

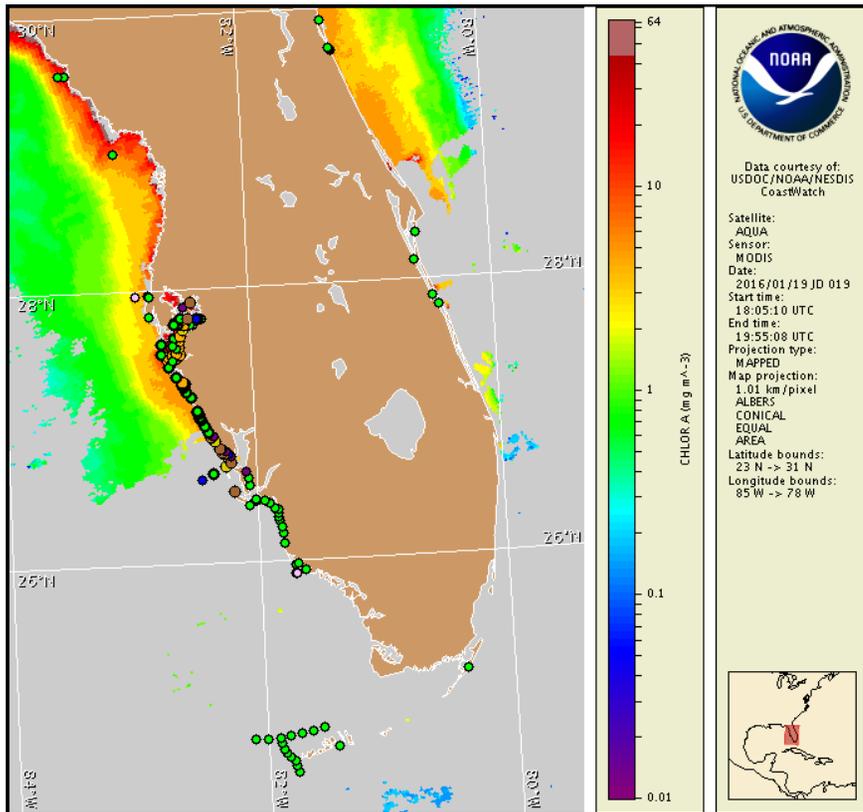
Thursday, 21 January 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Tuesday, January 19, 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 11 to 20: 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/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, January 21 through Monday, January 25 is listed below:

County Region: Forecast (Duration)

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

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

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

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

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

Southern Manatee: Very Low (Th, Su-M), Low (F-Sa)

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

Northern Sarasota: Very Low (Th, Su), Moderate (F-Sa), Low (M)

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

Southern Sarasota: Very Low (Th, Su-M), Low (F-Sa)

Northern Charlotte: Very Low (Th, Su-M), Low (F-Sa)

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

Southern Charlotte: Very Low (Th, Su-M), Low (F-Sa)

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

Northern Lee: Very Low (Th, Su-M), Moderate (F-Sa)

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

Central Lee: Very Low (Th, Su-M), Low (F-Sa)

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

All Other NWFL to Alabama County Regions: Visit <http://tidesandcurrents.noaa.gov/hab/#nwfl>

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 has been reported in Manatee and Sarasota counties. Dead fish have been reported in Sarasota County.

Analysis

Recent samples collected along-and offshore southwest Florida indicate background to 'high' *Karenia brevis* concentrations from Pinellas to central Lee County, with the highest concentrations located within the bay regions of northern Manatee County. 'Medium' concentrations remain present from northern Pinellas to southern Charlotte counties, with 'low b' *K. brevis* concentrations present alongshore and up to 13 miles offshore Lee County (FWRI; 1/11-1/19). Slight respiratory irritation and dead fish have been reported at Siesta Key in Sarasota County (FWRI 1/19) Respiratory irritation has also been reported from Coquina Beach in Manatee County (FWRI; 1/19). 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, 1/19) is obscured by clouds from Charlotte to Monroe counties, limiting analysis in this region. Patches of elevated chlorophyll (2-8 $\mu\text{g/L}$) are visible alongshore Pinellas to northern Charlotte counties.

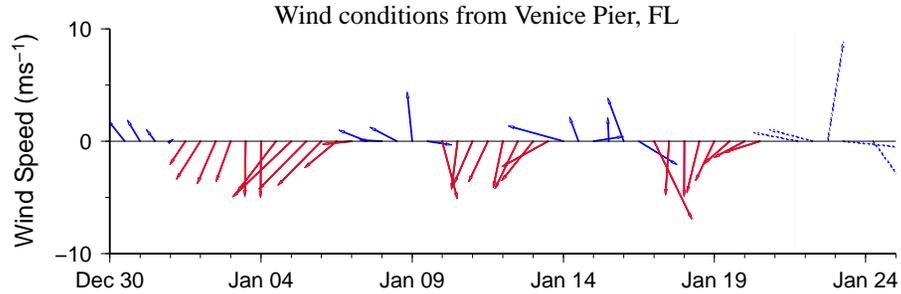
Variable winds forecasted today through Monday may decrease the potential for transport of surface *K. brevis* concentrations alongshore southwest Florida.

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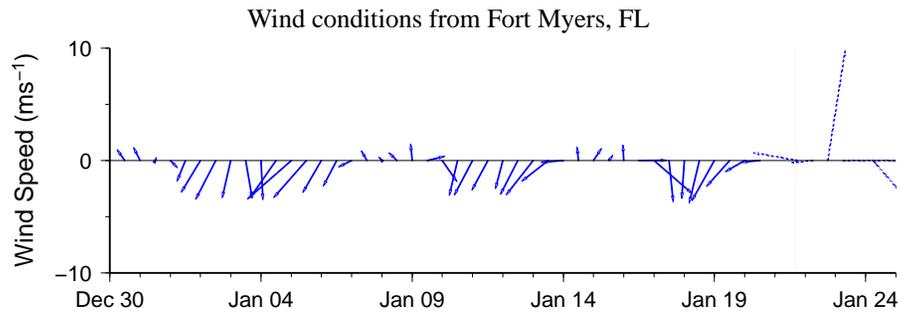
Wind Analysis

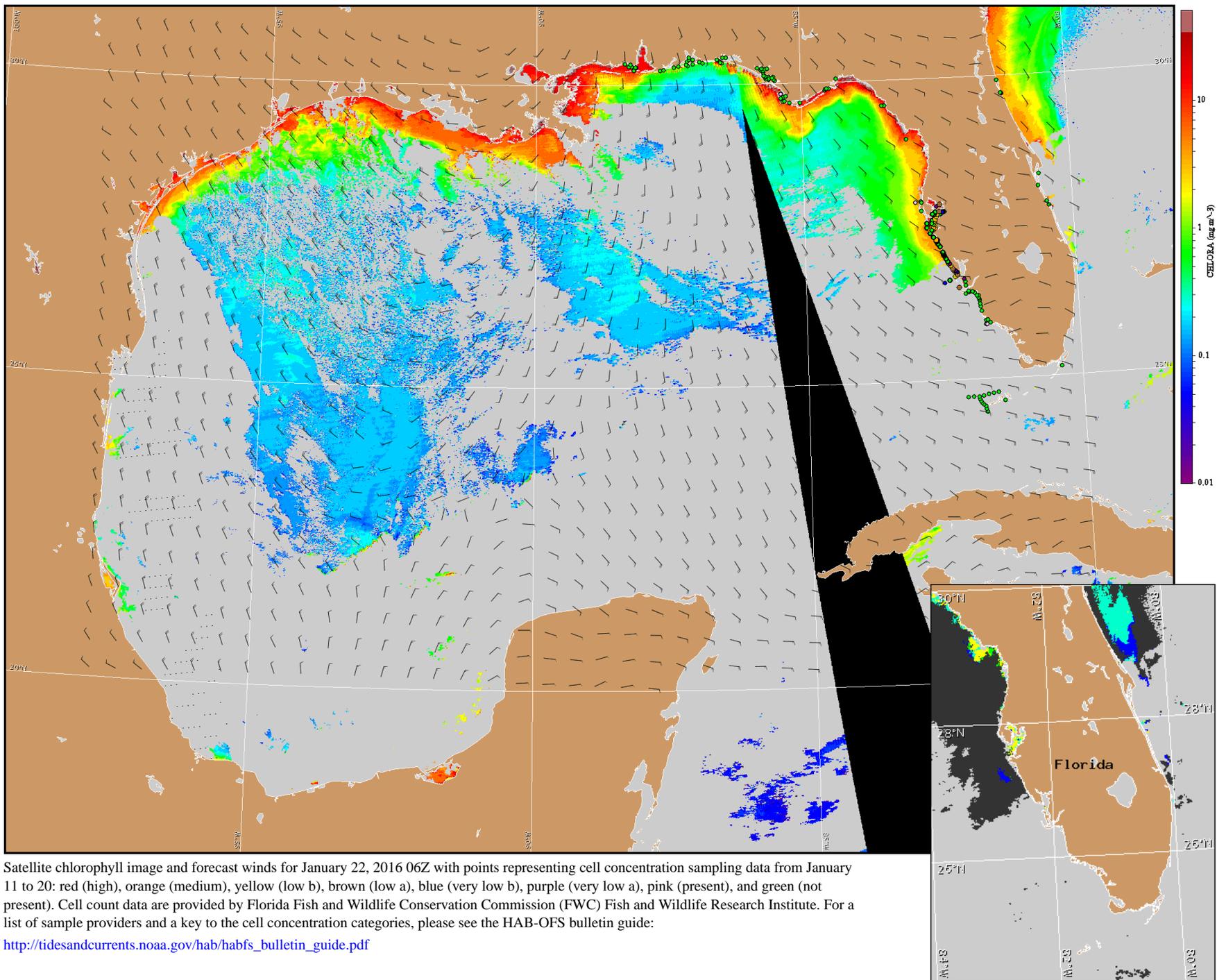
Englewood to Tarpon Springs (Venice): Southeast winds (10-20kn, 5-10m/s) today through Friday becoming southwest Friday afternoon. West winds (25kn, 13m/s) Friday night. Northwest winds (5-25kn, 3-13 m/s) Saturday and Sunday. North winds (5kn, 3m/s) Sunday night. Southeast winds (5kn) Monday.

Bonita Beach to Englewood (Ft. Myers): East winds (10-15kn, 5-8m/s) today becoming southeast (15-20kn, 8-10m/s) Friday. West winds (10-25kn, 5-13m/s) Friday night. Northwest winds (15-25kn, 8-13m/s) Saturday through Sunday. North to northeast winds (5-10kn, 3-5m/s) Sunday night. East winds (5kn) 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 January 22, 2016 06Z with points representing cell concentration sampling data from January 11 to 20: 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).