



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

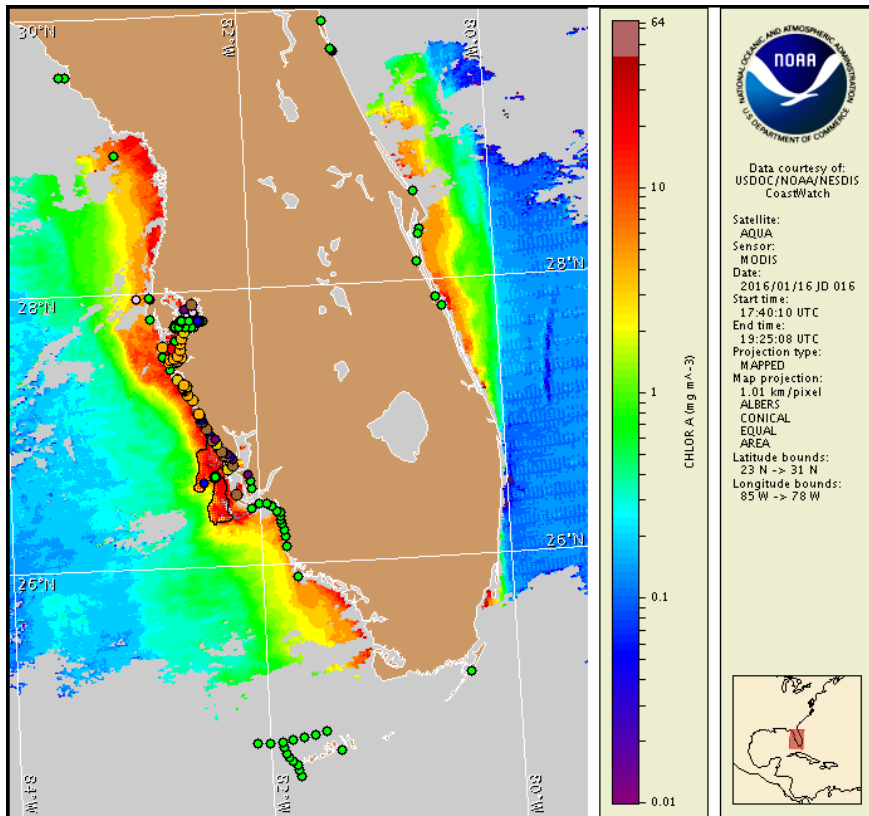
Tuesday, 19 January 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, January 14, 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 9 to 18: 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 Tuesday, January 19 through Thursday, January 21 is listed below:

County Region: Forecast (Duration)

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

Southern Pinellas: Very Low (Tu-Th)

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

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

Southern Manatee: Very Low (Tu-Th)

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

Northern Sarasota: Very Low (Tu-Th)

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

Southern Sarasota: Very Low (Tu-Th)

Northern Charlotte: Very Low (Tu-Th)

Northern Charlotte, bay regions: Moderate (Tu-Th)

Southern Charlotte: Very Low (Tu-Th)

Southern Charlotte, bay regions: Moderate (Tu-Th)

Northern Lee: Very Low (Tu-Th)

Northern Lee, bay region: Low (Tu-Th)

Central Lee: Very Low (Tu-Th)

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

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 and dead fish have been reported in Manatee and Sarasota counties.

Analysis

Recent samples collected along- and offshore southwest Florida indicate background to 'high' *Karenia brevis* concentrations from Pinellas to central Lee, with the highest concentrations continuing to be collected along- and inshore southern Pinellas, Manatee, and Sarasota counties (FWRI, MML; 1/12-16). Samples collected offshore northern Lee County identified 'very low b' to 'low a' *K. brevis* concentrations approximately 7-13 miles offshore Cayo Costa (FWRI; 1/12). Respiratory irritation and dead fish have been reported in Manatee and Sarasota counties (FWRI, MML; 1/14-19). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: <http://myfwc.com/redtidestatus>.

In recent ensemble imagery (MODIS Aqua, 1/16) patches of elevated to very high chlorophyll (3 to >20 $\mu\text{g/L}$) with the optical characteristics of *K. brevis* are present alongshore regions of southern Pinellas to central Lee counties, with a large patch visible stretching

along- and offshore Charlotte and Lee counties.

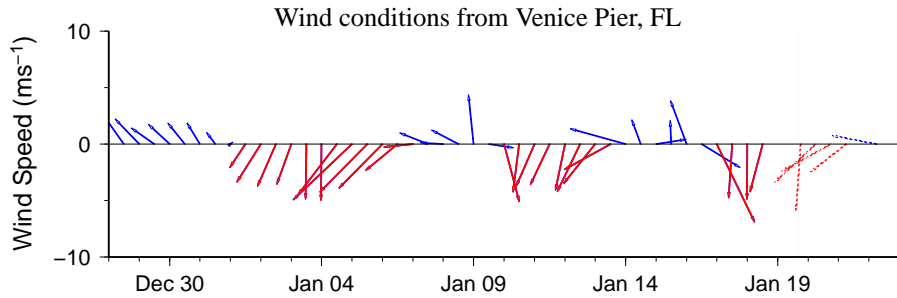
Observed winds over the last several days may have promoted southerly transport of *K. brevis* concentrations. Variable winds forecasted today through Thursday may decrease the potential for transport of surface *K. brevis* concentrations.

Davis, Derner

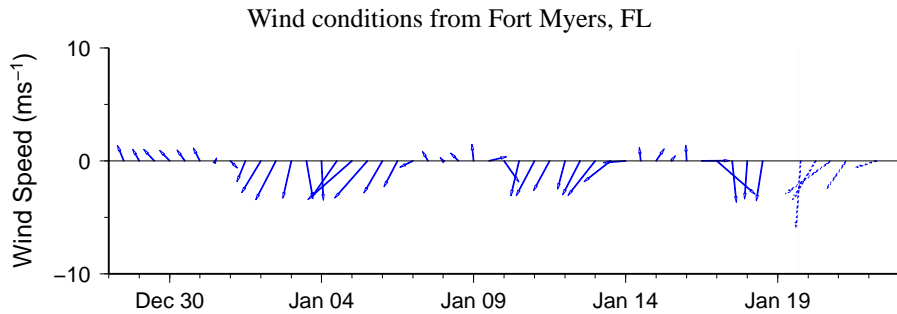
Wind Analysis

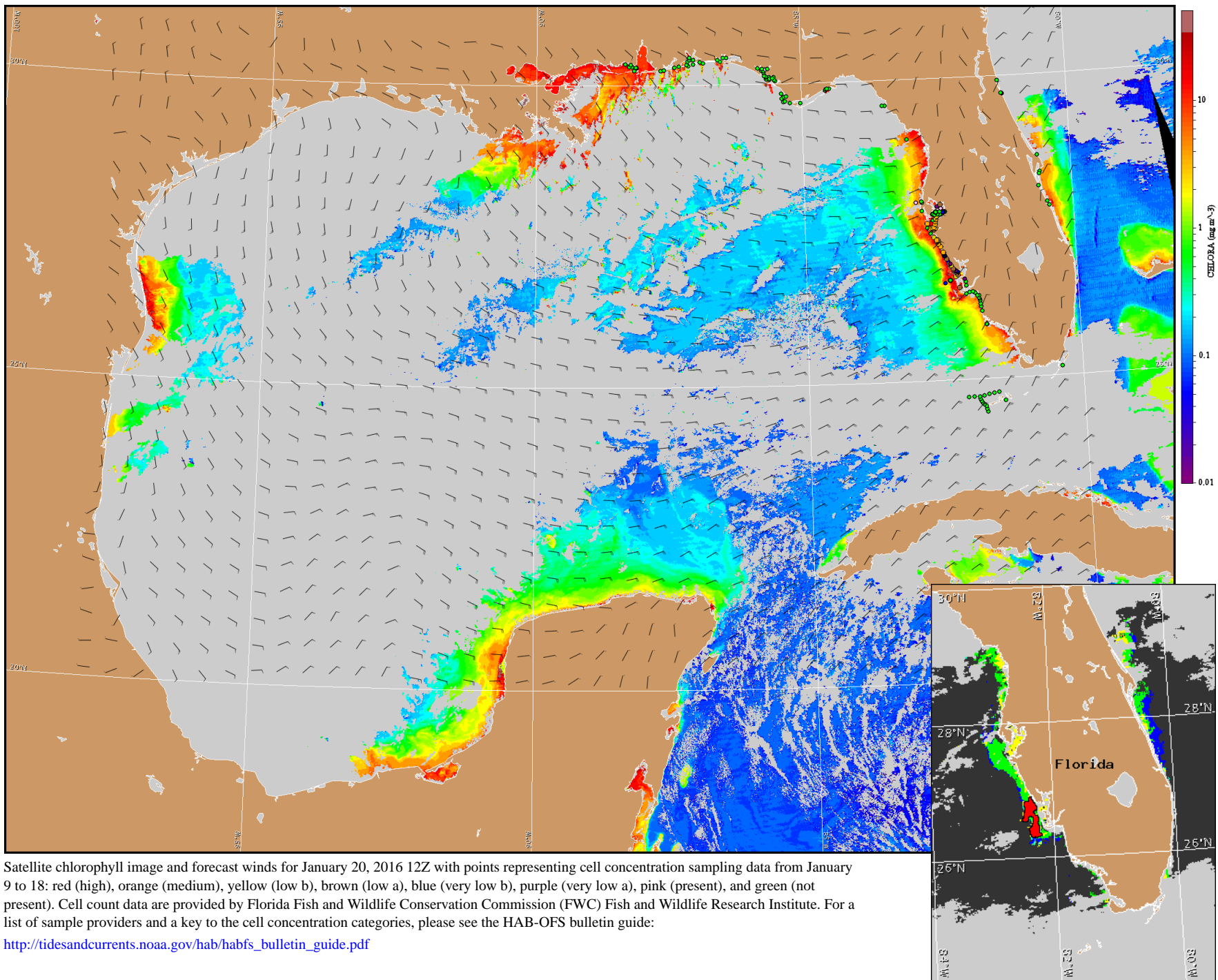
Englewood to Tarpon Springs (Venice): North winds (15-20kn, 8-10m/s) today becoming northeast winds (15kn, 8m/s) tonight. Northeast winds (5-15kn, 3-8m/s) Wednesday becoming east winds (10kn, 5m/s) Wednesday night through Thursday.

Bonita Beach to Englewood (Ft. Myers): Northeast to north winds (15-20kn) today. Northeast winds (5-15kn) Wednesday. East winds (10kn) 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 January 20, 2016 12Z with points representing cell concentration sampling data from January 9 to 18: 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).