



## Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

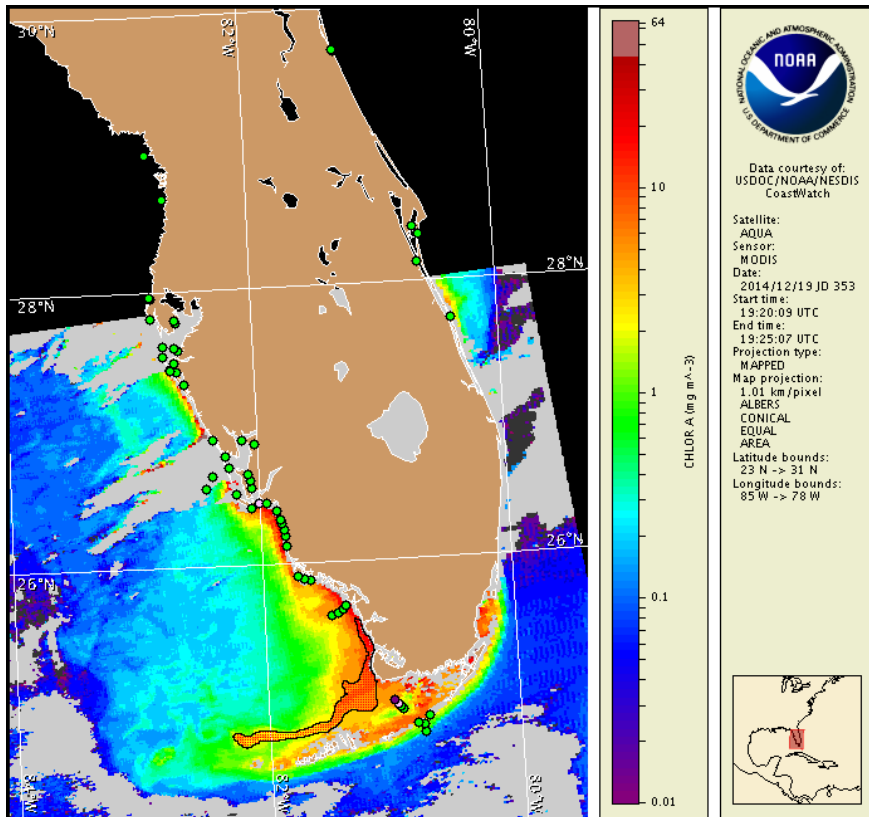
Monday, 22 December 2014

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, December 15, 2014



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from December 12 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](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 background concentrations along the coast of southwest Florida, and not present to very low offshore the Florida Keys. No respiratory irritation is expected alongshore southwest Florida, including the Florida Keys, Monday, December 22 through Monday, December 29.

Check [http://tidesandcurrents.noaa.gov/hab/beach\\_conditions.html](http://tidesandcurrents.noaa.gov/hab/beach_conditions.html) for recent, local observations.

## Analysis

The most recent samples collected from Pinellas to Monroe counties indicate that *Karenia brevis* concentrations range from not present to very low along- and offshore Southwest Florida, including the Florida Keys (FWRI, SCHD, MML, CCPCPD; 12/12-18). Several background *K. brevis* concentrations were identified alongshore Sarasota County at Longboat Beach Key, North Lido Beach, Lido Beach, and the Venice Fishing Pier (SCHD; 12/15), and one background concentration was identified alongshore central Lee County at Lighthouse Beach (FWRI; 12/17). All other samples collected along- and offshore Southwest Florida from Pinellas to Monroe counties, including offshore Pavilion Key, indicated that *K. brevis* is not present (FWRI, SCHD, MML, CCPCPD; 12/12-18). In the Florida Keys, not present to 'very low a' *K. brevis* concentrations have been identified offshore Oxfoot Key, north of the middle keys (MML; 12/15). All other samples collected along- and offshore the Florida Keys indicated that *K. brevis* is not present (MML; 12/12-16). No reports of dead fish or respiratory irritation associated with *K. brevis* have been received over the past week (FWRI, MML; 12/15-22).

Recent MODIS Aqua imagery (12/19, shown left) is obscured by clouds along- and offshore much of Pinellas, Manatee, Charlotte, and northern Lee counties, limiting analysis in these areas. Elevated to high chlorophyll (2-20  $\mu\text{g/L}$ ) is visible along- and offshore Sarasota County and southern Lee to Monroe counties. There is a large patchy feature of anomalously elevated chlorophyll stretching offshore Cape Sable and north of the lower and middle Florida Keys.

Variable winds forecasted over the next several days may maintain the position of any remaining surface *K. brevis* concentrations.

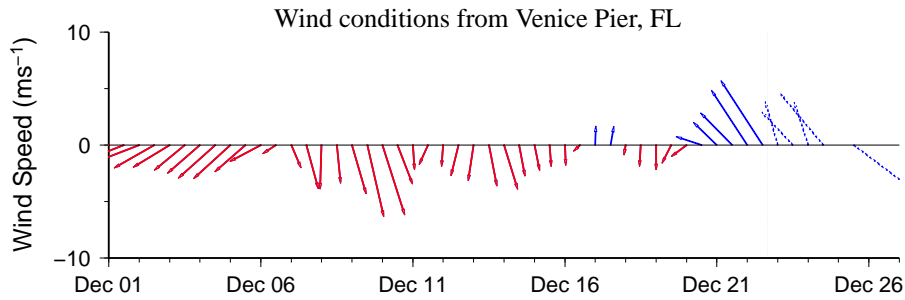
Yang, Derner

## Wind Analysis

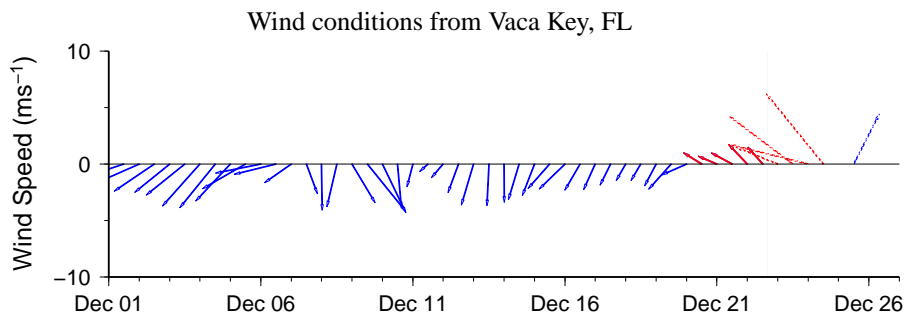
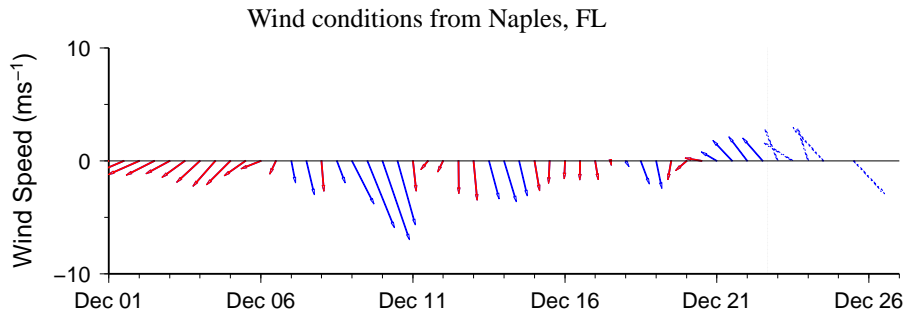
**Englewood to Tarpon Springs (Venice):** South winds (10-15kn, 5-8m/s) today. Southeast winds (10-15kn) Tuesday. South winds (20kn, 10m/s) Wednesday becoming southwest Wednesday night. Northwest winds (20kn) Thursday becoming north (10-15kn) Thursday afternoon through Thursday night. East winds (10kn, 5m/s) Friday.

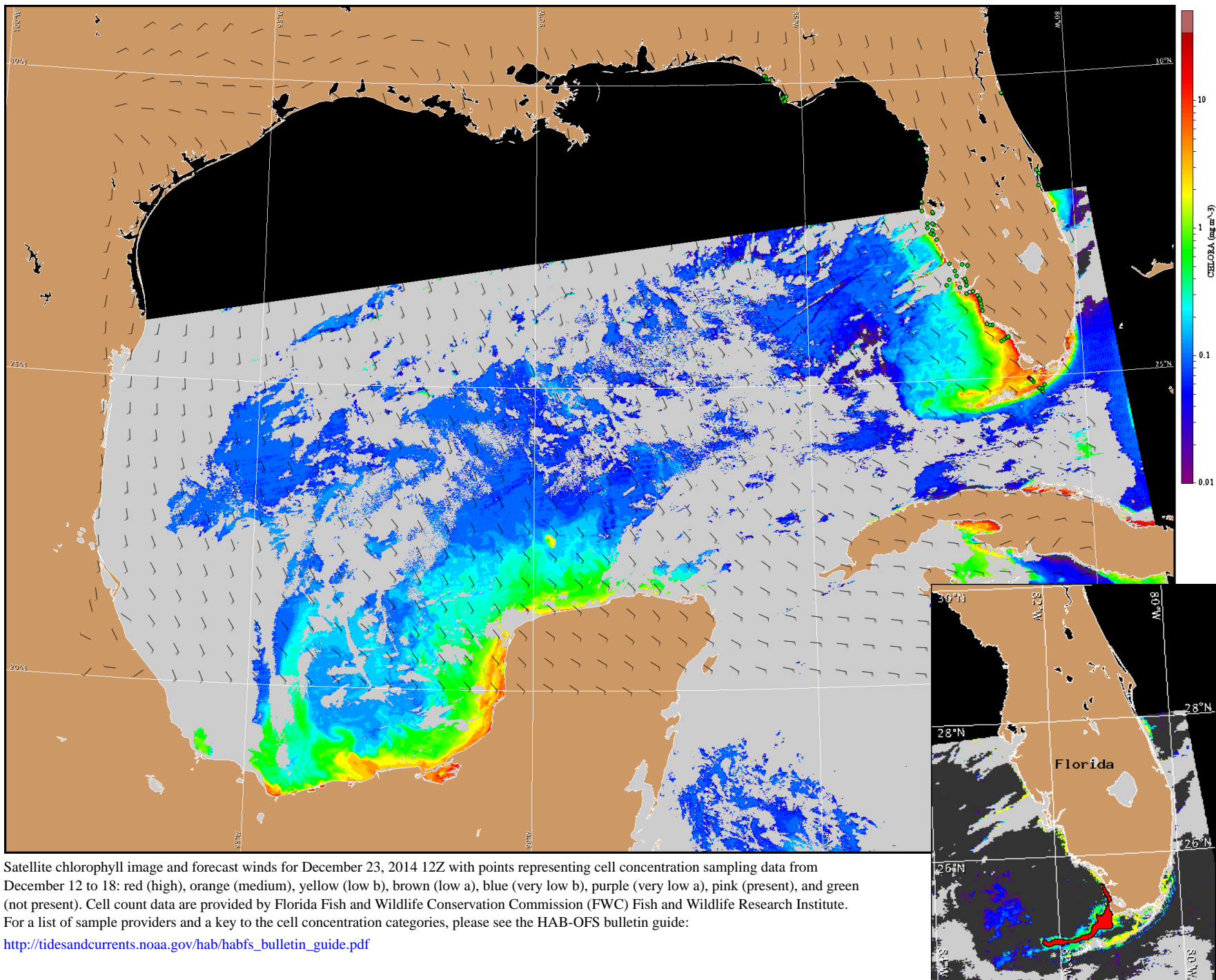
**Chokoloskee to Bonita Beach(Naples):** South winds (5-10kn, 3-5m/s) today. South southeast winds (5-10kn) tonight. Southeast winds (10-15kn) Tuesday. South winds (15-20kn, 8-10m/s) Wednesday. Southwest winds (15-20kn) Wednesday night. North northwest winds (10-15kn) Thursday. East northeast winds (10-15kn) Thursday night and Friday.

**Florida Keys: Bayside and Gulf side from Craig Key to west end of Seven Mile Bridge:** East to southeast winds (10-20kn, 5-10m/s) today and Tuesday. South to southwest winds (15kn, 8m/s) Wednesday becoming west (15kn) late Wednesday night. West winds (15kn) becoming northwest to north (15-20kn) Thursday. North to northeast winds (15-20kn) Thursday night. Northeast to east winds (10-15kn) Friday.



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 December 23, 2014 12Z with points representing cell concentration sampling data from December 12 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 of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).