



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

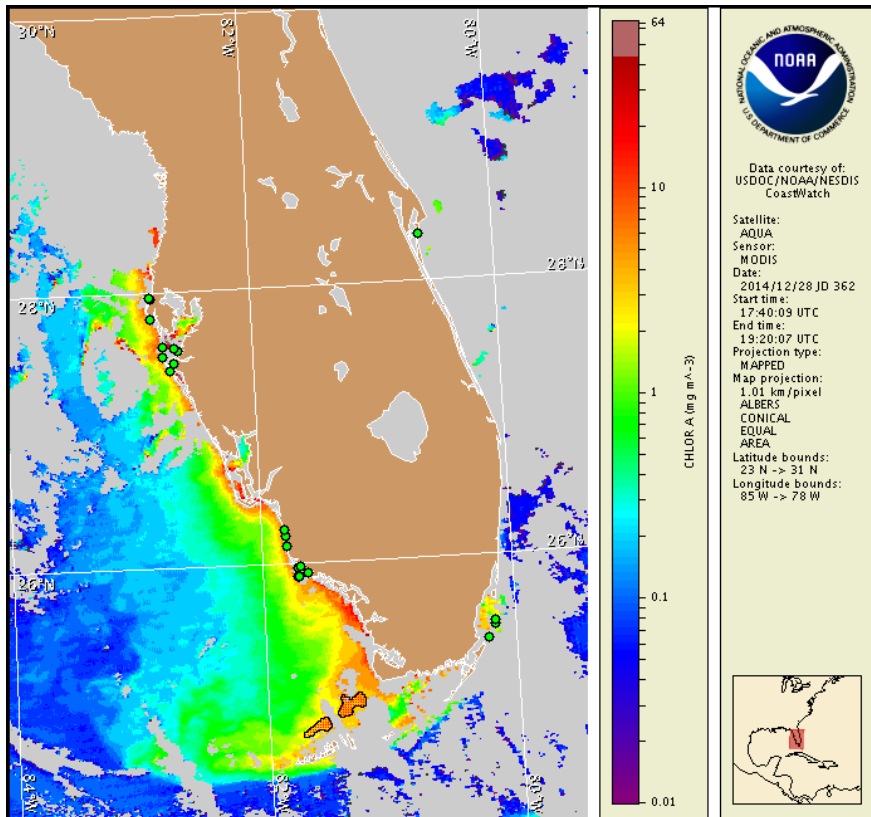
Monday, 29 December 2014

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, December 22, 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 19 to 22: 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) is not present along the coast of southwest Florida, and ranges from not present to medium concentrations offshore the Florida Keys. No respiratory irritation is expected alongshore southwest Florida, including the Florida Keys, Monday, December 29 through Monday, January 5.

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations.

Analysis

The most recent samples received from southwest Florida alongshore Pinellas, Manatee, and Collier counties all indicate that *Karenia brevis* is not present (FWRI, CCPCPD; 12/18-22). In the Florida Keys, water samples have confirmed the presence of up to 'medium' concentrations of *K. brevis* offshore north of the lower Florida Keys (MML; 12/17-18). Two samples containing 'low a' and 'medium' *K. brevis* concentrations were identified approximately 5-7 miles northwest of Sawyer Key (MML; 12/17), and three additional samples identifying 'low b' to 'medium' *K. brevis* concentrations were collected approximately 5-9 miles north to northeast of Harbor Key (MML; 12/18). No *K. brevis* has been identified alongshore the Florida Keys (MML; 12/12-18). No reports of dead fish or respiratory irritation associated with *K. brevis* have been received over the past week (FWRI, MML; 12/22-29).

Recent MODIS Aqua imagery (12/28, shown left) is patchy along- and offshore southwest Florida, limiting analysis. Elevated chlorophyll (2-9 $\mu\text{g/L}$) is visible in patches stretching along- and offshore from Pinellas to Collier counties, and patches of elevated to high chlorophyll (2-14 $\mu\text{g/L}$) are visible along- and offshore Monroe County. A feature of anomalously elevated chlorophyll continues to be visible stretching offshore Cape Sable north of the middle and lower Florida Keys, in the region where up to 'medium' *K. brevis* concentrations were identified. This region will continue to be monitored as imagery becomes available.

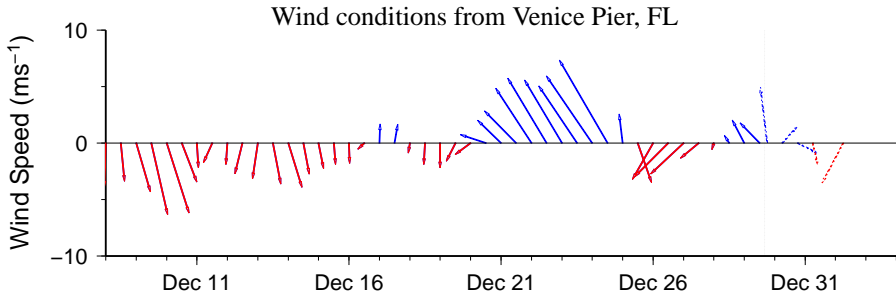
Northerly winds forecast Wednesday and Thursday may promote southern transport of surface *K. brevis* concentrations. Variable easterly winds forecast over the next week may also promote westward transport of surface *K. brevis* concentrations north of the lower Florida Keys.

Derner, Davis

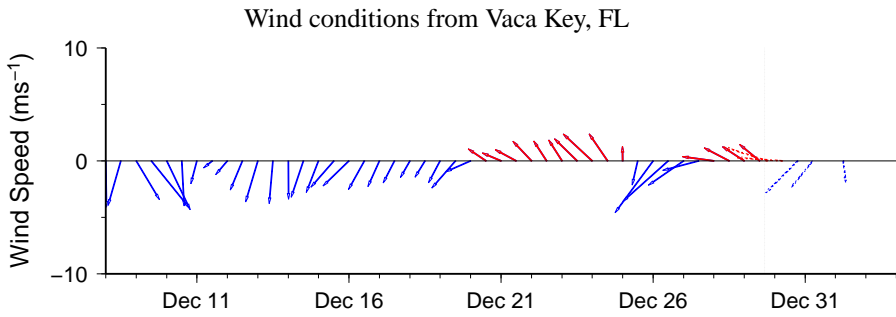
Wind Analysis

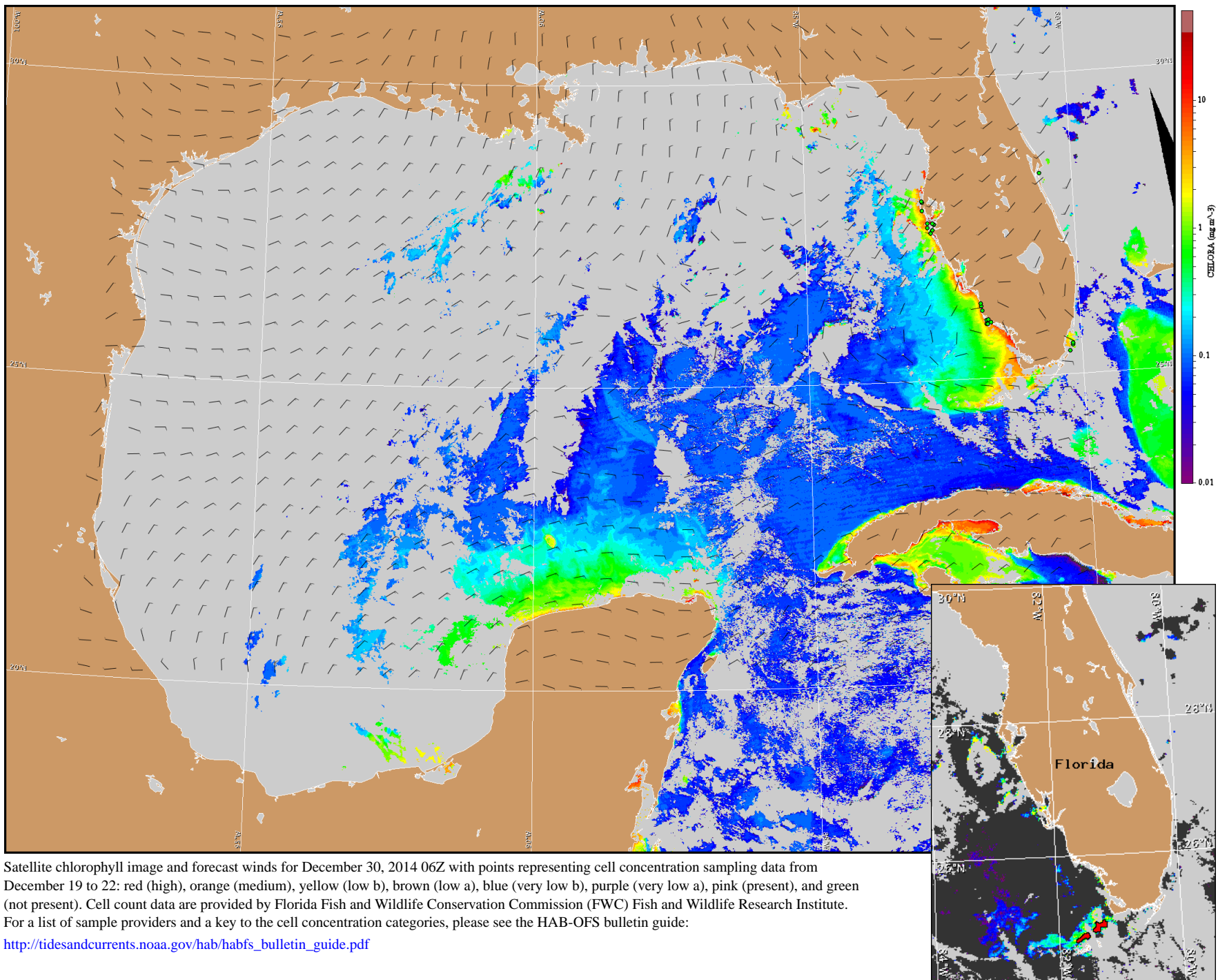
Englewood to Tarpon Springs (Venice): South winds (10kn, 5m/s) today. Southwest winds (10kn) Tuesday becoming northwest Tuesday afternoon. North winds (10-15kn, 5-8m/s) Tuesday night. Northeast winds (5-15kn, 3-8m/s) Wednesday through Friday.

Florida Keys: West end of Seven Mile Bridge to Halfmoon Shoal: Southeast winds (10-15kn) today becoming east to southeast (5-10kn) tonight. Northeast winds (5-10kn) Tuesday through Wednesday. Northeast to east winds (10-15kn) Wednesday night and Thursday. East to southeast winds (10-15kn) Thursday night through Friday night.



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 30, 2014 06Z with points representing cell concentration sampling data from December 19 to 22: 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

Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).