



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

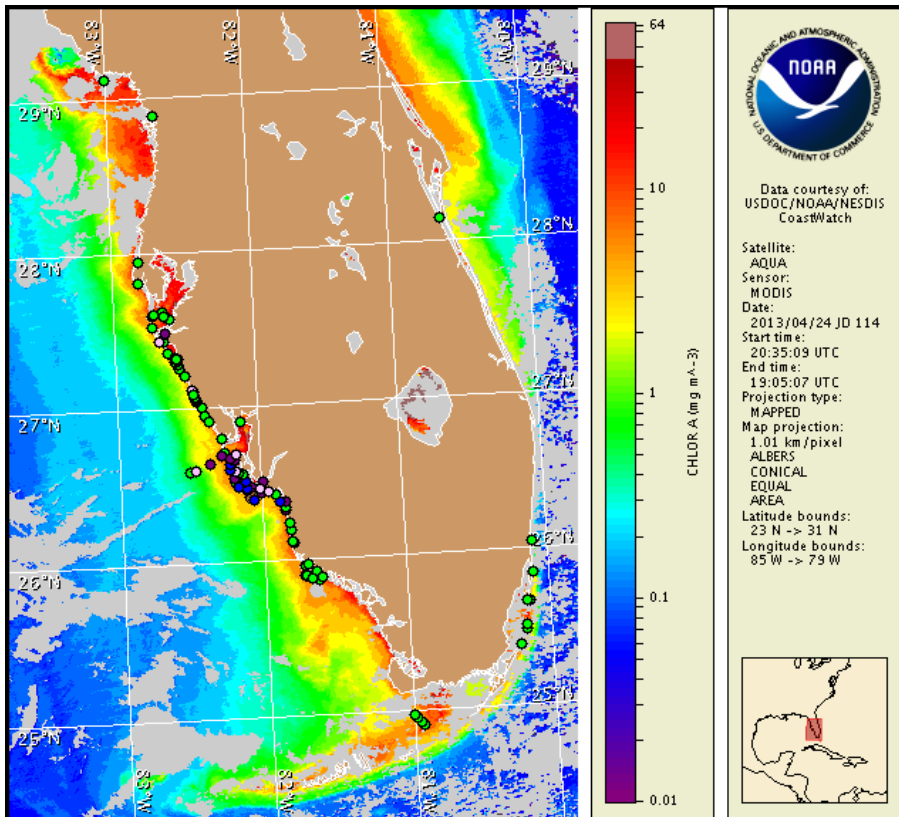
Thursday, 25 April 2013

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, April 22, 2013



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from April 15 to 23: 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

Background to low concentrations of *Karenia brevis* (commonly known as Florida Red Tide) are present along- and offshore southwest Florida. In the bay regions of central Lee County, patchy very low respiratory impacts are possible today through Monday. No respiratory impacts are expected elsewhere alongshore southwest Florida, including the Florida Keys, today through Monday, April 29.

Analysis

Recent sampling throughout southwest Florida continues to indicate that *Karenia brevis* concentrations persist alongshore and in the bays of central and southern Lee County. In the bays of Manatee County, one sample from Palma Sola Bay indicated 'very low a' *K. brevis* concentrations (FWRI; 4/23). Samples collected over the past several days in the Pine Island Sound region of Lee County indicate *K. brevis* concentrations now range between 'not present' and 'very low b', with the highest concentration at York Island where 'low a' concentrations were measured on 4/17 (FWRI; 4/18-21). Offshore Lee County, sampling associated with an anomalously high patch of chlorophyll 8 miles west of Costa Cayo indicated 'very low a' *K. brevis* concentrations (FWRI; 4/22). 'very low b' *K. brevis* concentrations were measured 1 mile south of Algiers Beach on southern Sanibel, near Tarpon Road Beach, where sampling on 4/17 measured 'low a' concentrations of *K. brevis* (FWRI; 4/21). All other samples collected along- and offshore southwest Florida, including the Florida Keys indicate 'not present' to 'background' concentrations of *K. brevis* (FWRI, SCHD, MML, CCPCPD; 4/17-23). No dead fish or respiratory irritation has been reported in the past week.

In recent MODIS Aqua imagery (4/24, shown left), elevated chlorophyll (2-8 $\mu\text{g/L}$) is visible alongshore southwest Florida from Pinellas to Collier County. Offshore Charlotte and Lee counties, an anomalously high patch of elevated chlorophyll (2-6 $\mu\text{g/L}$) is visible extending 7-14 miles offshore and north to south from 26°47'21"N 82°23'39"W to 26°38'6"N 82°24'4"W. In northern Monroe County, an anomalously high patch of elevated chlorophyll (2-5 $\mu\text{g/L}$) is visible approximately 17 miles southwest of the Ten Thousand Islands region, extending north to south from 25°35'48"N 81°58'24"W to 25°21'50"N 81°36'6"W. Further sampling for both of these areas is recommended. In the Florida Keys, imagery continues to be partially obscured by clouds; however, patches of elevated chlorophyll (3-9 $\mu\text{g/L}$) are visible on the bay side of the lower to middle Keys.

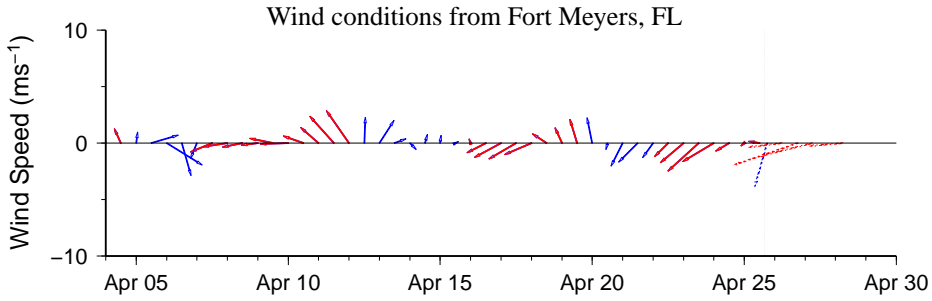
Along the coast of southwest Florida, upwelling favorable conditions over the past several days may have promoted bloom intensification. Over the next several days, conditions will be favorable for upwelling April 26-29, increasing the potential for intensification of *K. brevis* concentrations along the coast.

Davis, Yang

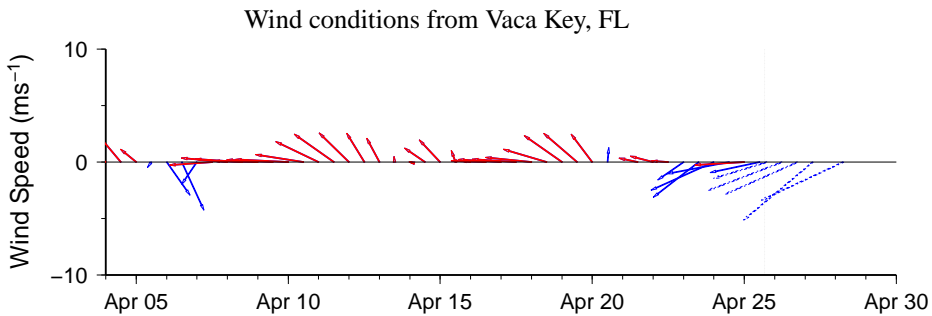
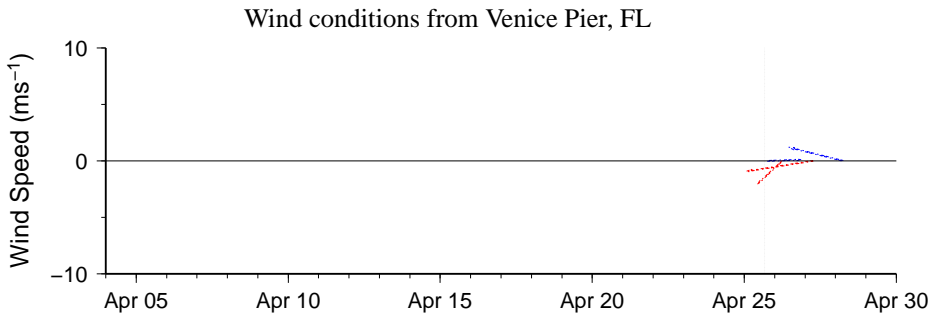
Wind Analysis

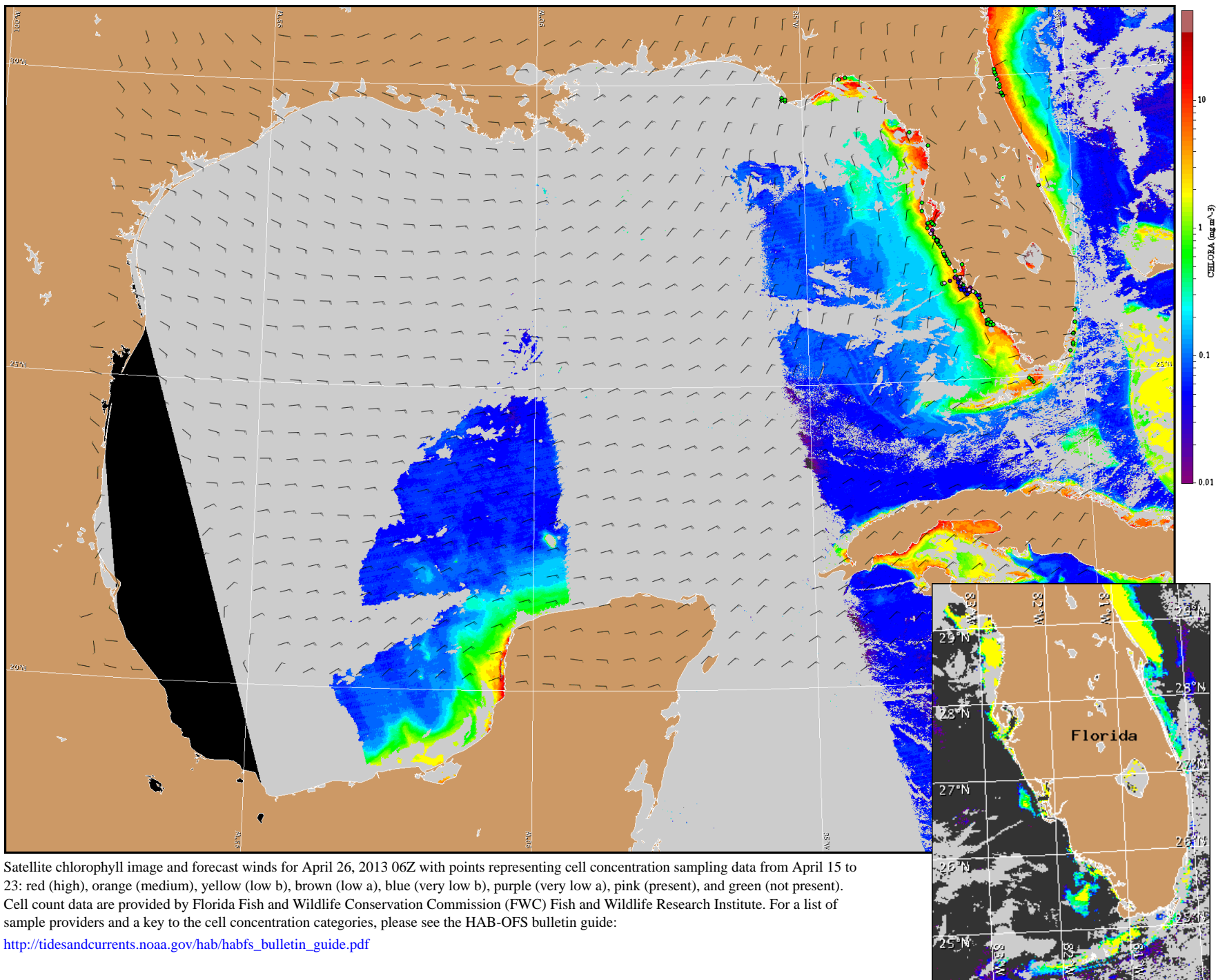
Southwest Florida: Northwest winds (10 kn, 5 m/s) today becoming north winds (10 kn) tonight. Northeast winds (10 kn) Friday becoming east winds (15 kn, 8 m/s) Friday night. East winds (10-15 kn, 5-8 m/s) Saturday becoming northwest (10 kn) in the afternoon. North to east winds (10-15 kn) Saturday night. East winds (10 kn) Sunday becoming northwest in the afternoon. Northeast winds (10 kn) Sunday night becoming east to southeast winds (10 kn) Monday.

Florida Keys: Northeast to east winds (10-15 kn) today through 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 April 26, 2013 06Z with points representing cell concentration sampling data from April 15 to 23: 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).