



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

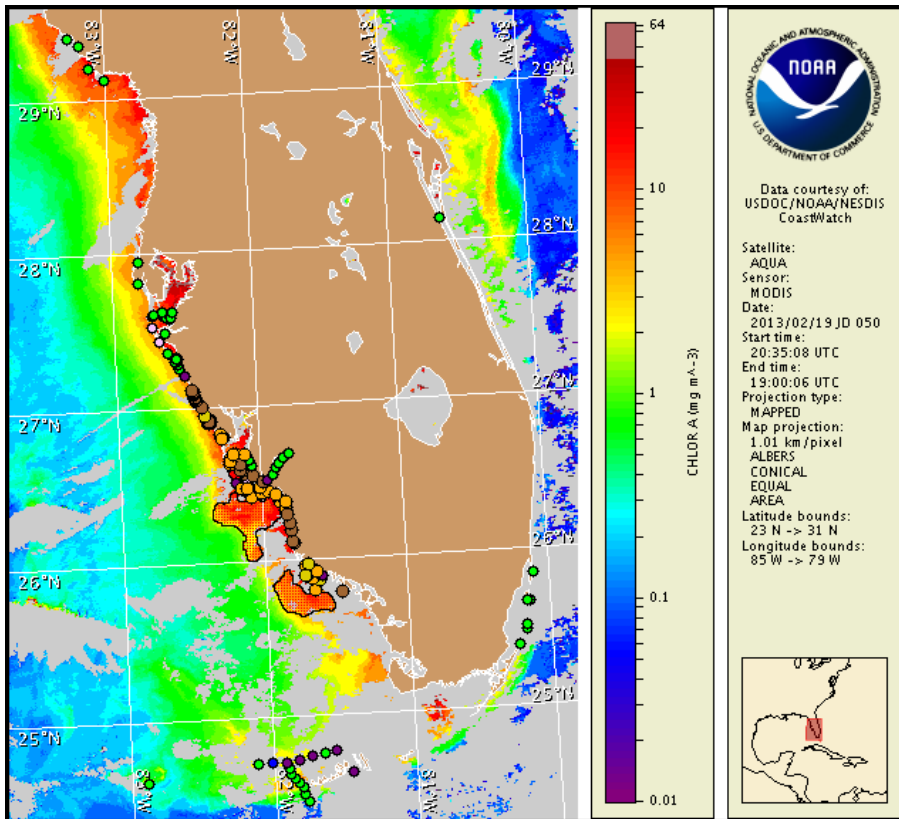
Thursday, 21 February 2013

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Tuesday, February 19, 2013



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s). Cell concentration sampling data from February 11 to 20 shown as 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 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 the Florida FWC Fish and Wildlife Research Institute at:

<http://myfwc.com/research/redtide/events/status/statewide/>

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit at: <http://tidesandcurrents.noaa.gov/hab/bulletins.html>

Conditions Report

Very low to high concentrations of *Karenia brevis* (commonly known as Florida Red Tide) are present along- and offshore southwest Florida and offshore the lower Florida Keys. Alongshore Sarasota and Charlotte counties, patchy low respiratory impacts are possible today through Monday. Alongshore Lee County, and in the bay regions of southern Charlotte, northern and central Lee counties, patchy moderate respiratory impacts are possible today through Monday. Alongshore northern Collier County, patchy very low respiratory impacts are possible today and Friday with moderate respiratory impacts possible Saturday through Monday. Alongshore and in the bay regions of central Collier County, patchy moderate respiratory impacts are possible today through Monday. Alongshore southern Collier and northern Monroe counties, patchy low respiratory impacts are possible today through Monday. No respiratory impacts are expected elsewhere alongshore southwest Florida, including the Florida Keys, today through Monday, February 25. Over the past few days, a report of dead fish was received from Lee County.

Analysis

A harmful algal bloom of *Karenia brevis* is present along- and offshore southwest Florida from Sarasota to Collier counties, with *K. brevis* concentrations ranging from 'not present' to 'high'. The presence of harmful algae of *Karenia brevis* has also been confirmed offshore the lower Florida Keys.

Recent samples collected throughout southwest Florida identified *K. brevis* concentrations ranging from 'very low a' to 'low b' along Sarasota County; 'very low a' to 'medium' in the bay regions of southern Charlotte, northern and central Lee counties; 'medium' alongshore southern Lee County; 'low a' to 'low b' alongshore northern Collier County; 'very low' to 'medium' alongshore and in the bay regions of central Collier County; and 'low a' offshore southern Collier County (FWRI, CCPCPD; 2/17-20). Samples collected alongshore and in the bay region of Pinellas County indicate that *K. brevis* is 'not present' (FWRI; 2/18). A report of dead fish was received from Lee County (MML; 2/20). 'Not present' to 'very low b' concentrations of *K. brevis* were identified in several samples collected offshore the gulf side of the lower Florida Keys, stretching from northwest of Key West to north of Sawyer Key; 'very low b' concentrations were also identified in one sample collected offshore southeast of the Kemp Channel Bridge (MML; 2/20).

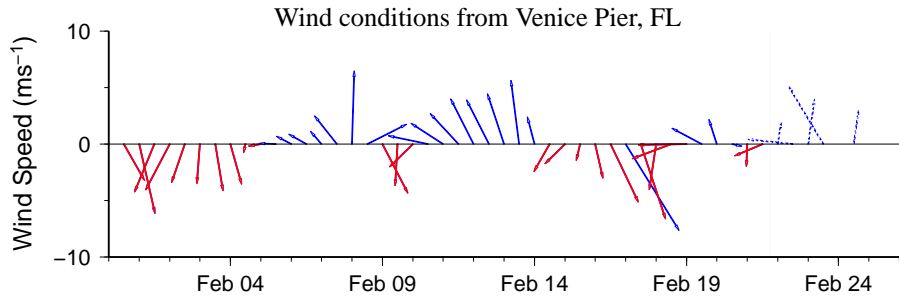
Recent MODIS Aqua imagery from 2/19 (shown left) is partially obscured by clouds along- and offshore Lee to Monroe counties and throughout the Florida Keys, limiting analysis. Elevated chlorophyll (2-9 $\mu\text{g/L}$) continues to be visible stretching along- and offshore the coast of southwest Florida from Pinellas to Monroe counties and offshore the gulf-side of the Lower and Middle Keys. MODIS Aqua imagery continue to indicate that the bloom may have been transported south, with a few very small patches of very high chlorophyll ($>20\mu\text{g/L}$) visible alongshore and offshore from central Lee to northern Collier counties. The widest elevated chlorophyll patch extends from 10-20 miles offshore southern Lee and northern Collier counties. Continued sampling of these areas is recommended.

Forecasted southerly winds today through Monday may minimize the transport of the bloom. -Yang, Derner, Kavanaugh

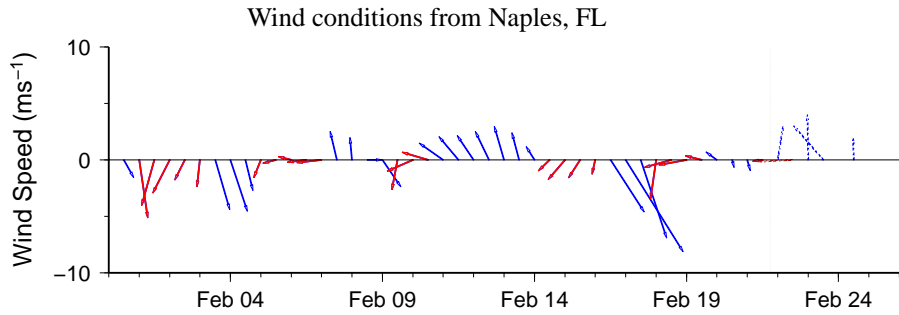
Wind Analysis

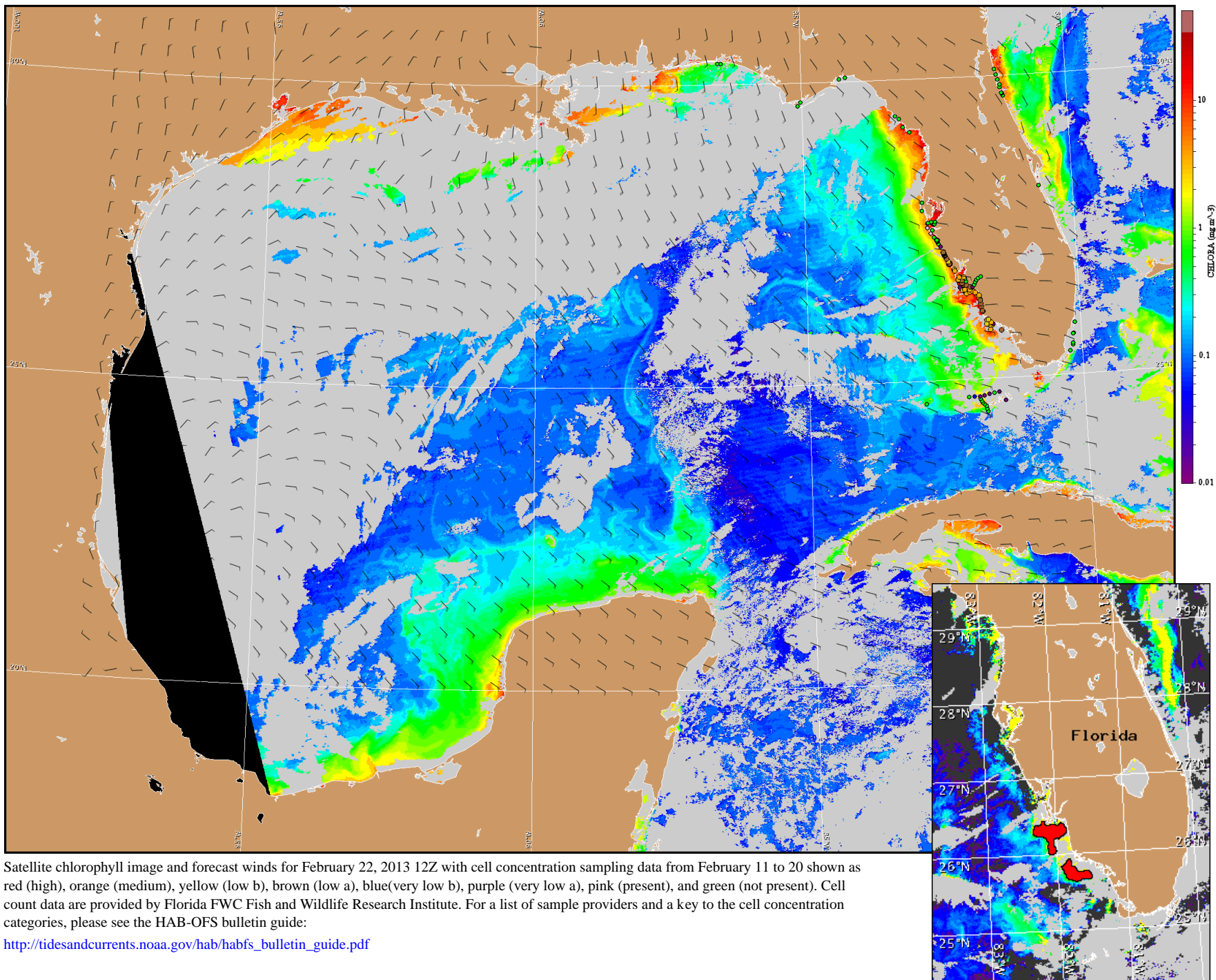
Pinellas to Lee counties: East winds (5-10kn, 3-5m/s) today becoming south and south-east (5-10kn) tonight. Southeast to south winds (5-15kn, 3-8m/s) Friday and Saturday. Southwest winds (5-10kn) Saturday night and Sunday. South to southeast winds (5-15kn) Sunday night through Monday.

Collier and Monroe counties: East southeast to south winds (12-17kn, 6-9m/s) today through Saturday. Southwest to south southwest winds (5-12kn, 3-6m/s) Saturday night through Sunday night. South to southeast winds (5-14kn, 3-7m/s) 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 February 22, 2013 12Z with cell concentration sampling data from February 11 to 20 shown as 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 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).