



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

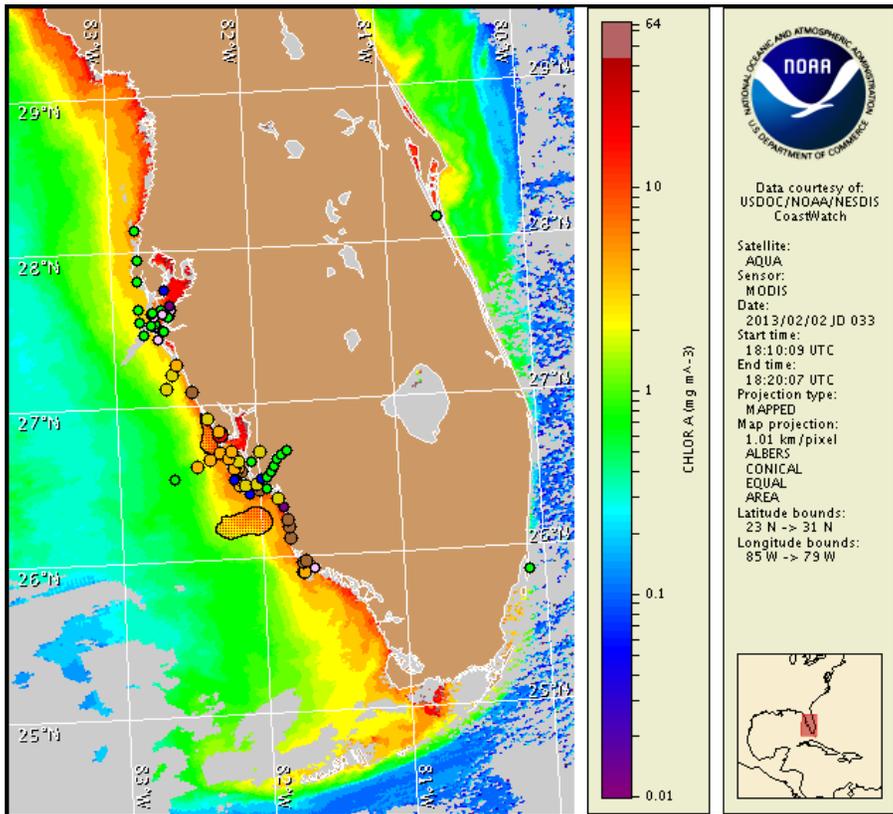
Monday, 04 February 2013

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, January 31, 2013



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s). Cell concentration sampling data from January 25 to 31 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 from southern Pinellas to Collier counties. In Sarasota, alongshore northern Charlotte and alongshore central and southern Lee counties, patchy low respiratory impacts are possible today, with patchy moderate respiratory impacts possible Tuesday through Thursday. In the bay regions of Charlotte and northern Lee counties, patchy moderate respiratory impacts are possible today, with patchy high respiratory impacts possible Tuesday through Thursday. In northern Collier County, patchy very low respiratory impacts are possible today, with patchy low respiratory impacts Tuesday through Thursday. In the bay regions of central Collier County, patchy moderate respiratory impacts are possible today through Thursday. No respiratory impacts are expected elsewhere alongshore southwest Florida, including the Florida Keys, today through Thursday, February 7. Over the past few days, reports of respiratory irritation were received from Sarasota and Charlotte counties. Reports of dead fish were received from Charlotte County.

Analysis

A harmful algal bloom of *Karenia brevis* is present along- and offshore southwest Florida from southern Pinellas to Collier counties, with *K. brevis* concentrations ranging from 'not present' to 'high'. Recent sampling alongshore northern Pinellas County indicated *K. brevis* was 'not present' (FWRI; 1/27). Recent sampling in the bay regions of northern Sarasota County and alongshore Sarasota County continues to indicate 'very low a' to 'medium' concentrations of *K. brevis*, with the highest concentrations found from Nokomis Beach south (FWRI; 1/28-31). 'Low b' concentrations of *K. brevis* were identified from a sample collected alongshore Charlotte County (FWRI; 1/29). Samples collected from the bay regions of Charlotte and Lee indicate 'low a' to 'high' concentrations of *K. brevis* (FWRI; 1/29-30). Alongshore central and southern Lee County, *K. brevis* concentrations ranged from 'not present' to 'low b' (FWRI; 1/30). Over the past few days, respiratory irritation was reported in northern and southern Sarasota County and in northern Charlotte County (MML; 1/31-2/1). Fish kills have also been reported in the last several days in northern Charlotte County (MML; 2/1).

In recent MODIS Aqua imagery (2/2, shown left) elevated chlorophyll (2-7 $\mu\text{g/L}$) is visible stretching along- and offshore the coast of southwest Florida from Pinellas to Monroe counties, with patches of elevated to high chlorophyll (5 to $>10 \mu\text{g/L}$) visible alongshore from Charlotte to northern Monroe counties. MODIS Aqua imagery from January 30th through February 2nd indicates that the bloom may have transported south, with patches of anomalously high chlorophyll now extending from alongshore southern Sarasota to along- and offshore northern Collier counties (27°04'7"N -82°29'19"W to 26°10'38"N -81°50'20"W). Continued sampling of this area is recommended.

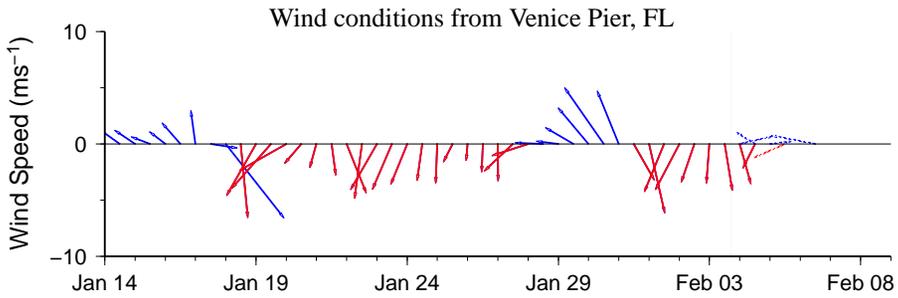
Onshore winds today through Thursday from Pinellas to Collier County may increase the likelihood of respiratory impacts alongshore southwest Florida. Variable winds today through Thursday may maintain the location of the bloom.

Kavanaugh, Fenstermacher

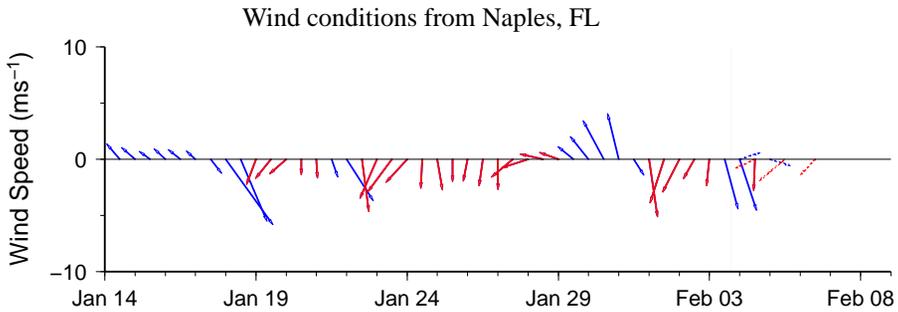
Wind Analysis

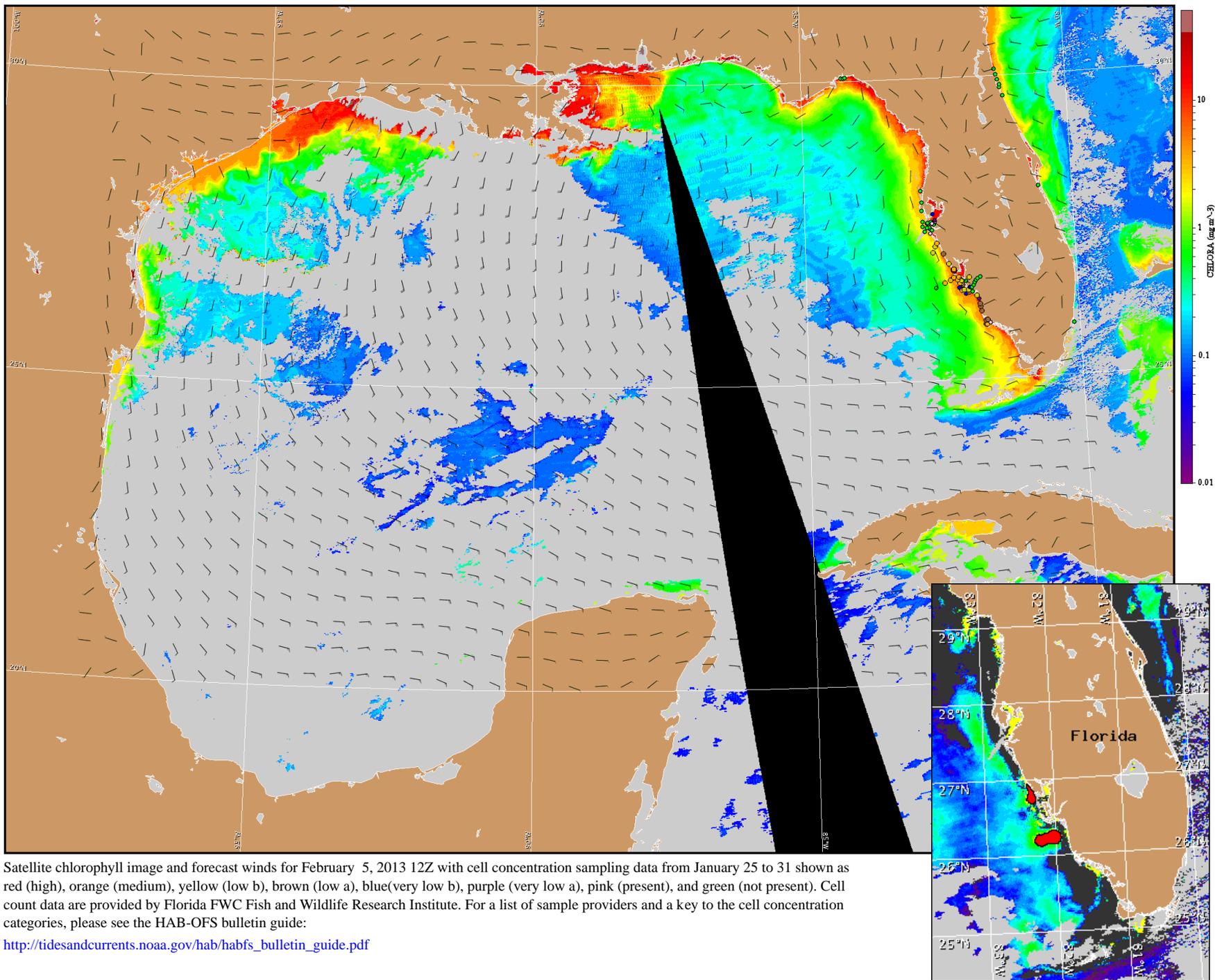
Pinellas to Collier County: East winds (5 kn, 3 m/s) today becoming south to southwest winds (5 kn) this afternoon through evening. Southeast to south winds (10 kn, 5 m/s) Tuesday through Wednesday. Southwest to south winds (5 kn) Wednesday afternoon through evening. East to southeast winds (5-10 kn, 3-5 m/s) Thursday becoming southwest winds (10 kn) in the afternoon through evening.

Collier and Monroe counties: East winds (5-9 kn, 3-5 m/s) today becoming south southeast to east winds (5-9 kn) this afternoon through evening. East southeast (5-10 kn) becoming south southeast (5-9 kn) in the afternoon. South to southeast winds (5-9 kn) Tuesday night through Wednesday night becoming east winds (6-11 kn, 3-6 m/s). Southeast to south southeast winds (5-11 kn, 3-6 m/s) Thursday becoming east winds (5-9 kn) Thursday 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 February 5, 2013 12Z with cell concentration sampling data from January 25 to 31 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

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