



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

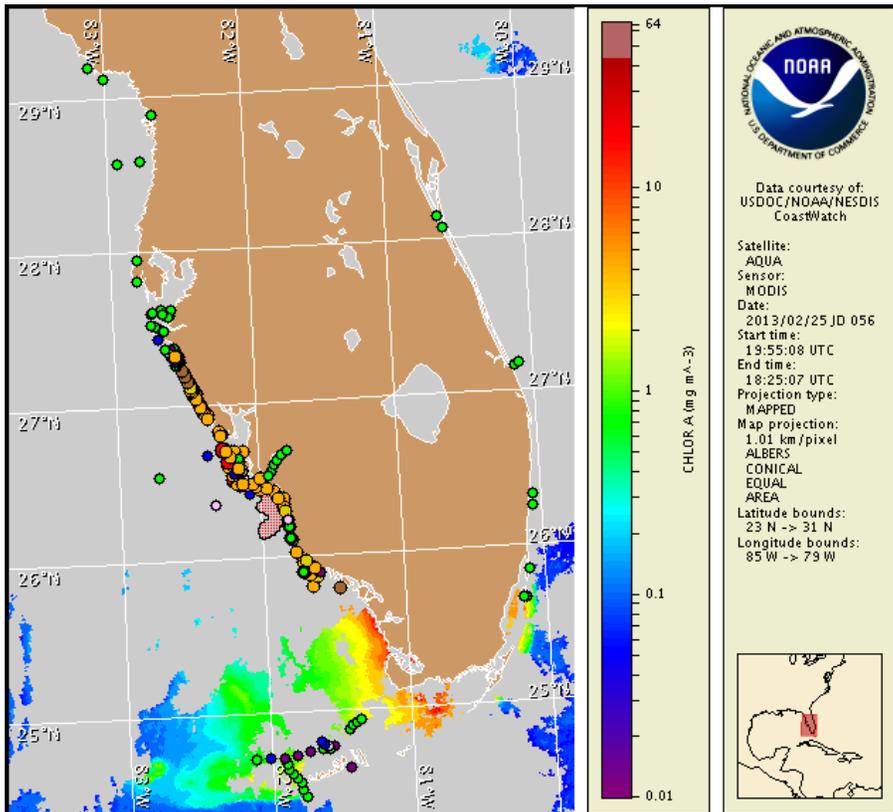
Thursday, 28 February 2013

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, February 25, 2013



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s). Cell concentration sampling data from February 18 to 26 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, as well as offshore the lower Florida Keys. In the bay region of southern Manatee County, patchy very low respiratory impacts are possible today through Monday. Alongshore northern Sarasota, patchy moderate respiratory impacts are possible today through Monday. Alongshore and in the bay regions of southern Sarasota, Charlotte, and Lee counties, patchy moderate respiratory impacts are possible today, Friday, and Monday, with patchy high respiratory impacts possible Saturday and Sunday. Alongshore northern Collier County, patchy moderate respiratory impacts are possible today through Monday. Alongshore and in the bay regions of central Collier County, patchy moderate respiratory impacts are possible today, Friday, and Monday, with patchy high respiratory impacts possible on Saturday and Sunday. 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, March 4. Over the past several days, reports of respiratory irritation were received from Sarasota, Charlotte, Lee and Collier counties. Reports of dead fish were received from Sarasota, Lee, and Collier counties.

Analysis

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

Samples collected over the last week continue to indicate that no *K. brevis* is present alongshore or inshore of Pinellas or Manatee counties, other than one 'very low b' *K. brevis* concentration collected alongshore Longboat Key (Sarasota Bay) in Manatee (FWRI; 2/26). 'Medium' *K. brevis* concentrations were identified alongshore Charlotte County at Englewood Beach and within the Gasparilla Sound at Gasparilla Island (FWRI; 2/26). Samples collected in the Pine Island Sound and San Carlos Bay region of Lee County identified 'very low b' to 'medium' concentrations, while one sample collected offshore approximately 7 miles west of Cayo Costa identified 'very low b' concentrations (FWRI; 2/23-25). Samples collected further offshore Lee County (13-35mi) indicated only 'background' and 'not present' concentrations (FWRI; 2/24). In northern Collier County, samples collected from Vanderbilt Beach to Naples Pier on Monday indicated 'background' *K. brevis* concentrations at Vanderbilt Beach (FWRI; 2/25). 'Medium' concentrations were identified in the bays of central Collier County at Halloway Island (FWRI; 2/22). Four samples collected offshore Sawyer Key in the lower Florida Keys identified 'very low a' to 'very low b' *K. brevis* concentrations (MML; 2/25); no additional samples have been received from the Florida Keys region. Slight to high respiratory irritation was reported along several beaches in Sarasota, Lee, Charlotte, and Collier counties this week (MML; 2/24-2/27), with dead fish also being reported alongshore beaches in Sarasota, Lee, and Collier counties (FWRI, MML, CCPCPD; 2/24-27).

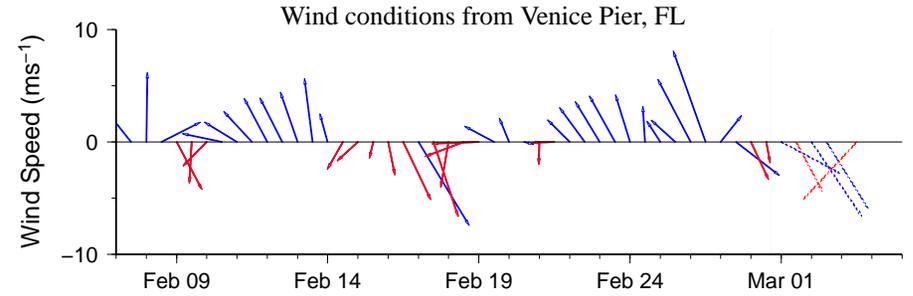
MODIS Aqua imagery over the past several days has been completely obscured by clouds over southwest Florida and the Florida Keys, limiting analysis. In MODIS imagery from 2/23-24 (not shown), elevated chlorophyll was visible stretching along- and offshore the southwest Florida coastline from Sarasota to Collier counties, with patches

of high to very high chlorophyll (11 to >20 $\mu\text{g/L}$) visible alongshore southern Lee to Collier counties. These regions will continue to be monitored as imagery becomes available.

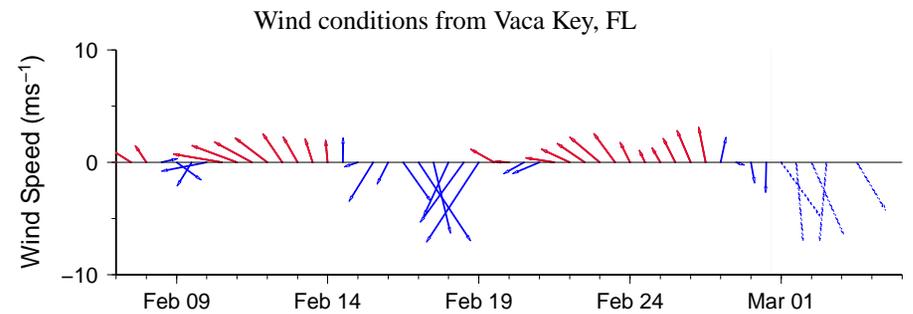
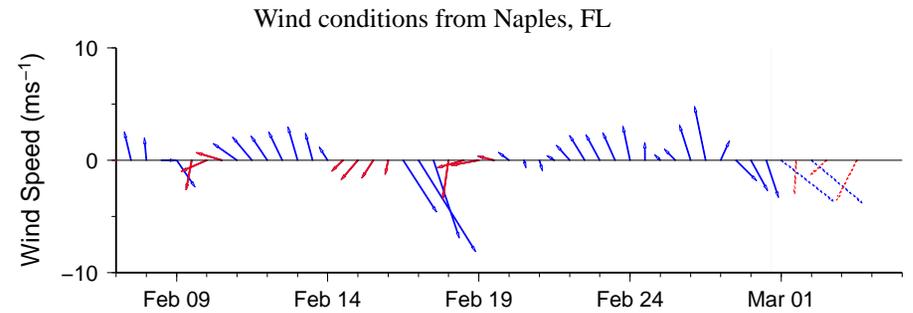
North to northwest winds forecast today through Monday alongshore southwest Florida may increase the potential for onshore transport of the bloom through the weekend and may also promote southerly transport of the bloom. Onshore winds may also increase the potential for respiratory impacts along the coast and in the bay regions of southwest Florida over the next several days. North to northwest winds forecast over the next several days may also increase the potential for onshore transport of harmful algae in the lower Florida Keys region.

Derner, Davis

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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).

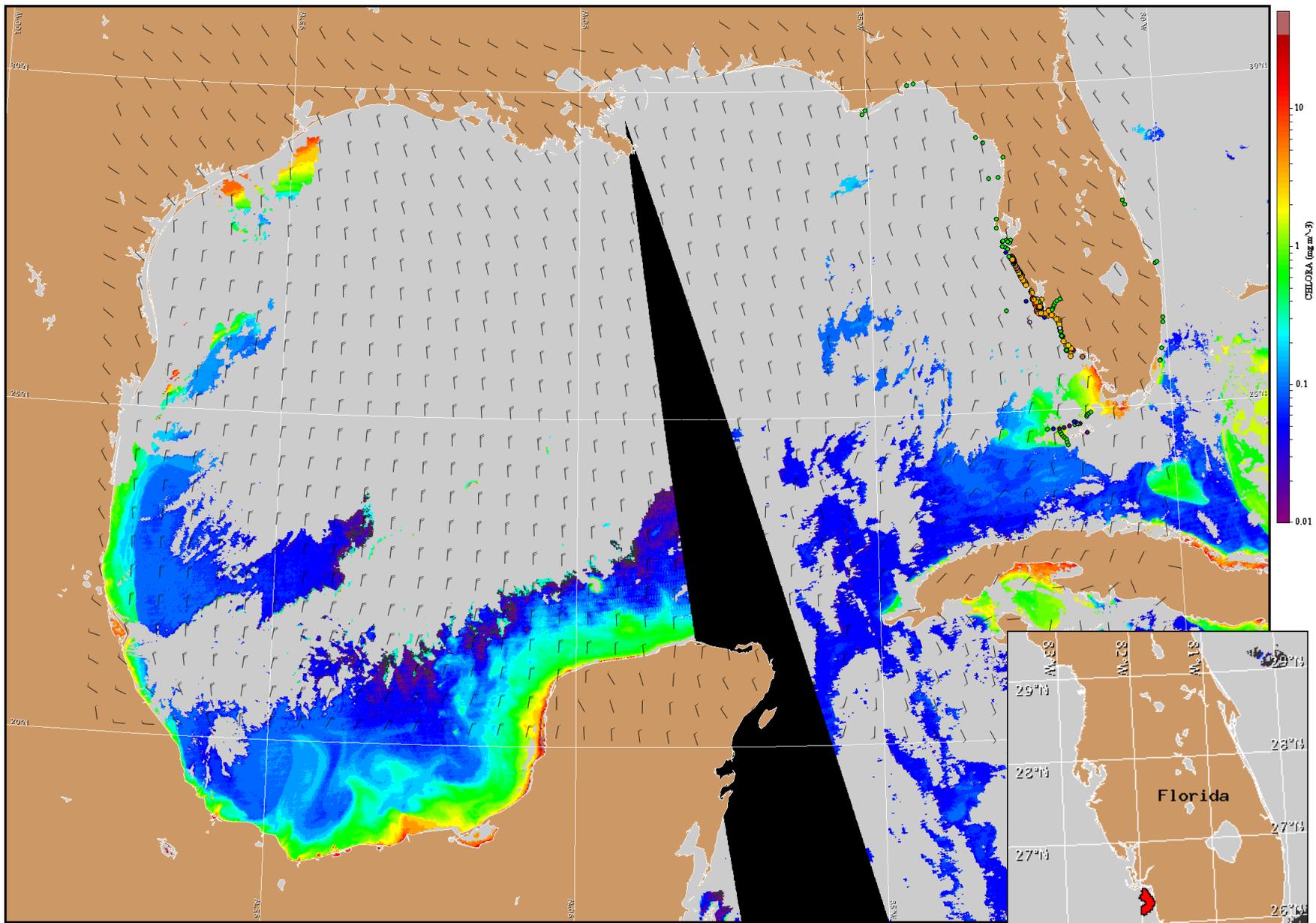


Wind Analysis

Pinellas to Lee counties: Northwest winds (10-20kn, 5-10m/s) today through Monday.

Collier and Monroe counties: North northwest winds (8-13kn, 4-7m/s) today. North winds (10-15kn, 5-8m/s) Friday. North northwest winds (11-16kn, 6-8m/s) Saturday becoming west northwest (16-21kn, 8-11m/s) Saturday afternoon. Northwest to north winds (8-20kn, 4-10m/s) Saturday night. North northeast winds (12-17kn, 6-9m/s) Sunday becoming northwest (13-18kn, 7-9m/s) Sunday afternoon. North northwest winds (17-22kn, 9-11m/s) Sunday night. North to northwest winds (5-14kn, 3-7m/s) Monday.

Gulf side of lower Florida Keys: North winds (10-15kn) today through Friday. Northwest to north winds (15-20kn, 8-10m/s) Saturday, becoming northwest (15-20kn) Saturday night through Monday.



Satellite chlorophyll image and forecast winds for March 1, 2013 12Z with cell concentration sampling data from February 18 to 26 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).