



## Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

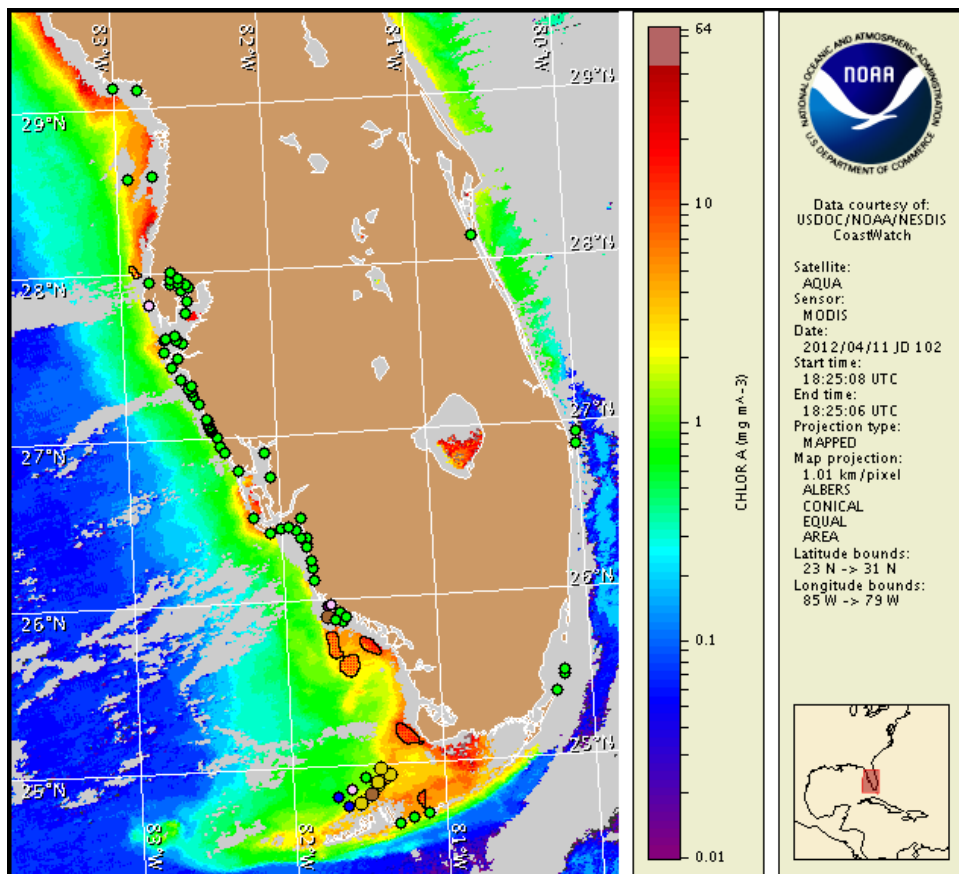
Thursday, 12 April 2012

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, April 9, 2012



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from April 2 to 10 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). For a list of cell count data 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](http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf)

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:  
<http://tidesandcurrents.noaa.gov/hab/bulletins.html>

## Conditions Report

A patchy harmful algal bloom is present in the Marco Island region of central Collier County and in the Gulfside region of the Lower Florida Keys. A harmful algal bloom was also last identified in the Pavilion Key region of northern Monroe County on March 27. Today through Sunday, patchy very low impacts are possible in the Marco Island region of central Collier County and in northern Monroe County, and patchy moderate impacts are possible in the Gulfside region of the Lower Florida Keys. No additional impacts are expected alongshore southwest Florida today through Sunday, April 15.

## Analysis

**Southwest Florida:** A harmful *Karenia brevis* bloom was re-identified last week in the Marco Island region of central Collier County (4/2-4/5; FWRI, CCPCPD) and in the Pavilion Key region of northern Monroe County on 3/27 (MML) Low *K. brevis* concentrations continue to be identified at South Marco Beach in central Collier County (4/5; FWRI). Background concentrations of *K. brevis* were also observed alongshore Pinellas County at Redington Pier on 4/9 (FWRI). No additional *K. brevis* was detected at the coast in Collier County or alongshore from Pinellas to Lee Counties over the last week (4/5-4/10, FWRI, SCHD). Additional sampling information can be obtained through FWRI at <http://myfwc.com/research/redtide/events/status/statewide/>.

Recent MODIS imagery is predominantly obscured by clouds along the southwest Florida coast, limiting analysis. An elevated to high chlorophyll feature (2-15  $\mu\text{g/L}$ ) remains partially visible offshore central Collier and Monroe counties from the Marco Island region extending south to approximately 25°32'15"N 81°34'60"W. Elevated to high chlorophyll (2-12  $\mu\text{g/L}$ ) also remains visible west of Cape Sable, extending approximately 13 miles offshore. Continued sampling in both of these areas is highly recommended. No significant features are visible in recent imagery alongshore or offshore Pinellas to Lee counties. Bloom intensification is unlikely through Sunday in Collier and Monroe counties based on forecasted conditions. Minimal bloom transport is expected through Sunday.

**Florida Keys:** The extensive harmful algal bloom identified north of the Lower Florida Keys continues to be observed. No new sample information is available for this region; however, several 'very low b' to 'medium' concentrations of *K. brevis* were identified 2-9 miles north of the Lower Keys last week, extending from the Spanish Keys west to Mud Key (4/3-4/5; MML, FWRI). Sampling last week indicated that no *K. brevis* is present near the 7-mile Bridge and Spanish Harbor (4/6; MML, FWRI).

Elevated chlorophyll (2-7  $\mu\text{g/L}$ ) remains visible in recent MODIS imagery (4/11, shown left) north of the Lower to Middle Florida Keys. Forecasted winds may continue to transport the bloom further west through Sunday.

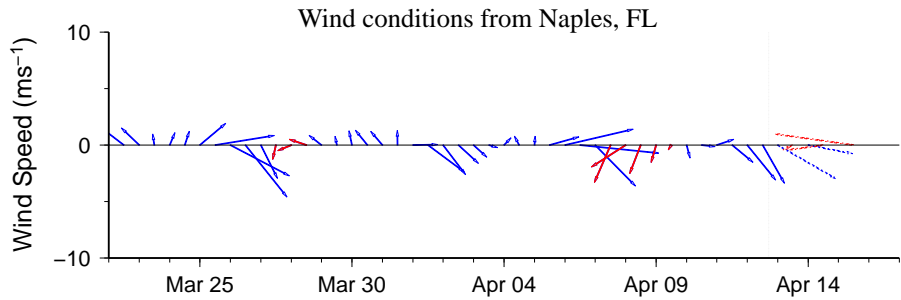
-Burrows, Derner

## Wind Analysis

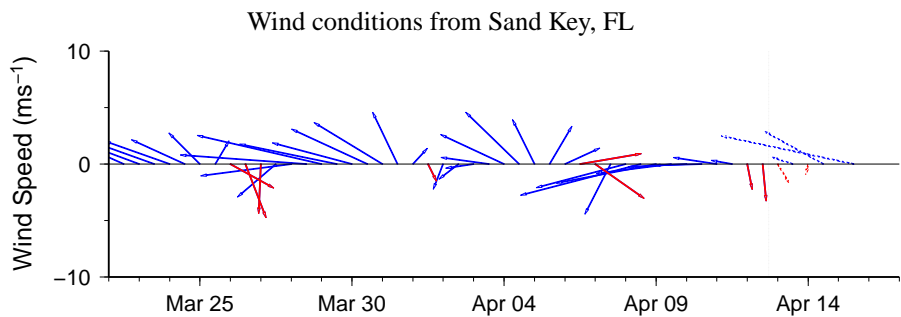
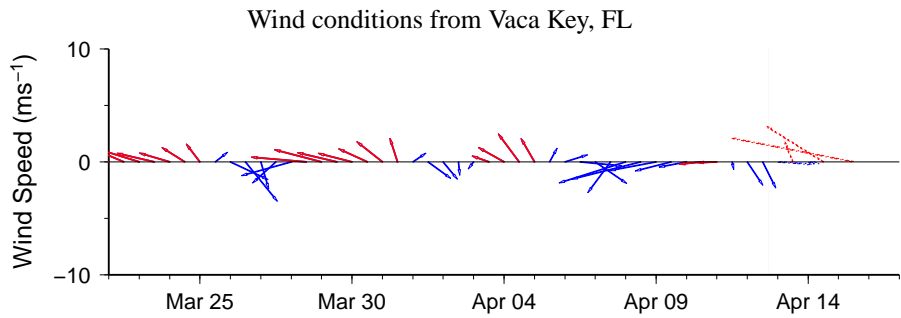
**Collier to Monroe Counties:** North to northwest winds today through tonight (7-15kn, 4-8m/s), becoming east northeast (9-12kn, 5-6m/s) later tonight. Northeast winds (8-11kn, 4-6m/s) Friday, becoming west northwest (6-9kn, 3-5m/s) Friday afternoon. North winds (13-16kn, 7-8m/s) Friday night, becoming east (15-18kn, 8-9m/s) later in the night. East southeast winds Saturday through Sunday (18-23kn, 9-12m/s).

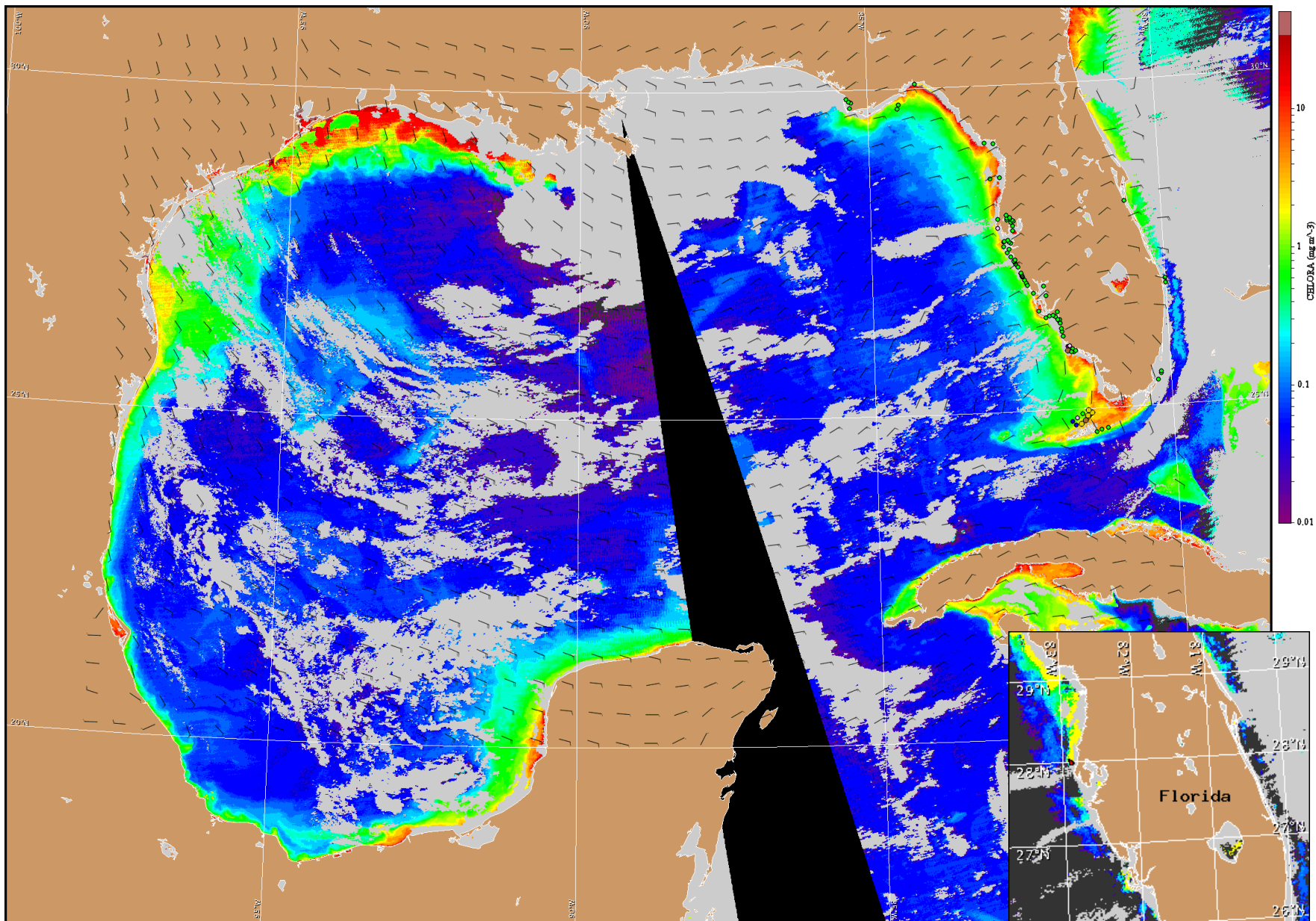
**Florida Keys - Gulfside:** Northwest to north winds today and tonight (10kn, 5 m/s). East winds (10kn) Friday becoming northeast to east winds Friday through Sunday night (10-20kn, 5-10 m/s).

**Pinellas to Lee Counties:** Northwest winds today and tonight (10-15kn, 5-8 m/s) becoming north winds Friday (10kn). East winds Friday night through Sunday night (15kn).



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 13, 2012 12Z with cell concentration sampling data from April 2 to 10 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). For a list of cell count data 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).