



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

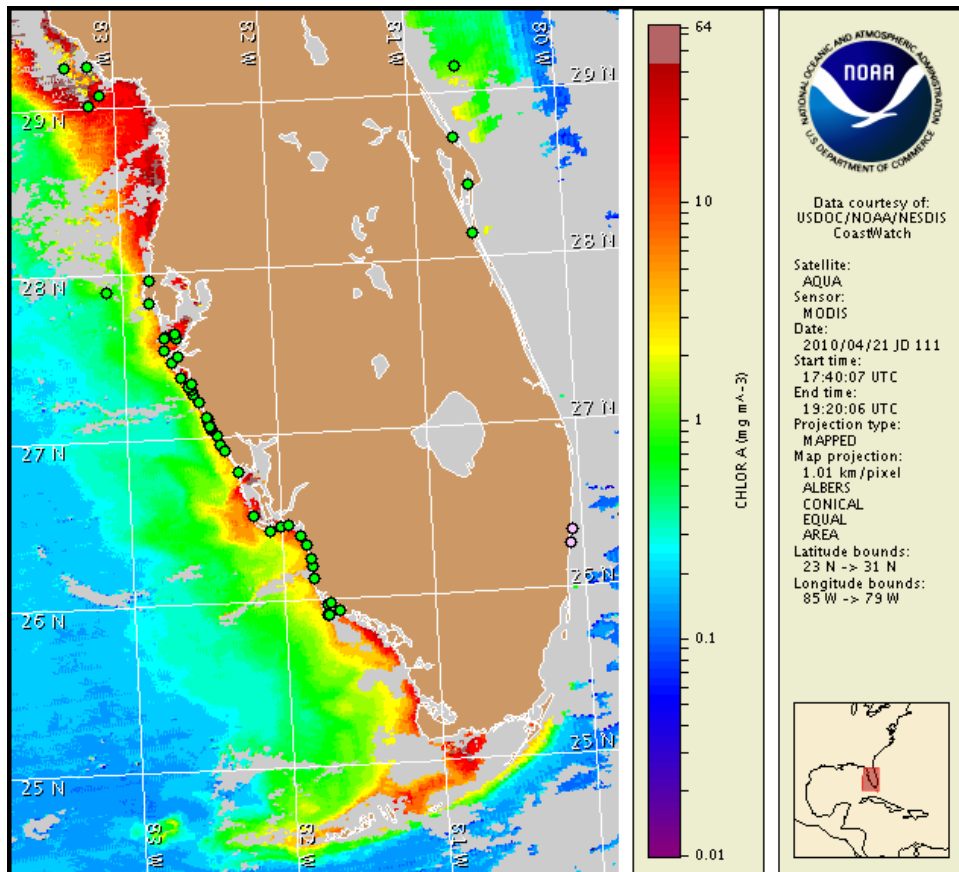
22 April 2010

NOAA Ocean Service

NOAA Satellites and Information Service

NOAA National Weather Service

Last bulletin: April 19, 2010



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from April 12 to 21 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 HABFS bulletin guide:

[http://tidesandcurrents.noaa.gov/hab/habfs\\_bulletin\\_guide.pdf](http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf)

Please note the following restrictions on all SeaWiFS imagery derived from CoastWatch.

1. Data are restricted to civil marine applications only; i.e. federal, state, and local government use/distribution is permitted.
2. Image products may be published in newspapers. Any other publishing arrangements must receive GeoEye approval via the CoastWatch Program.

## Conditions Report

There is currently no indication of a harmful algal bloom at the coast in southwest Florida including the Florida Keys. No impacts are expected alongshore southwest Florida today through Sunday, April 25.

## Analysis

\*\* Note: As of today, April 22, bulletins will be issued once per week on Mondays due to harmful algal bloom inactivity. Bulletins will be issued twice per week when conditions warrant. \*\*

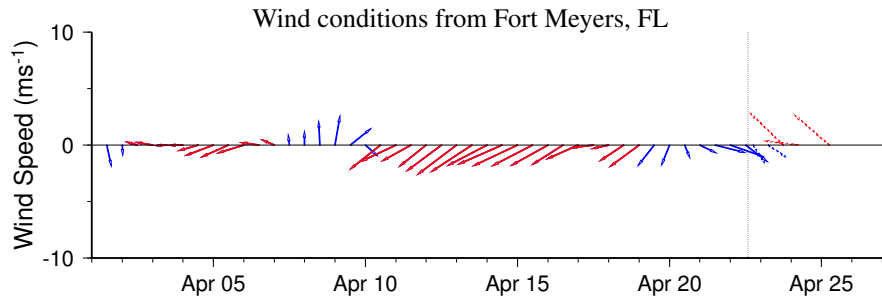
**Southwest Florida:** There is currently no indication of a harmful algal bloom at the coast in southwest Florida including the Florida Keys. Satellite imagery taken on 4/21 indicates elevated levels of chlorophyll alongshore Pinellas, Manatee, Sarasota, Charlotte, and Collier counties and elevated to high levels of chlorophyll alongshore Lee County ( $>2 \mu\text{g/L}$ ), where the highest levels of chlorophyll are found offshore and onshore northern and southern Lee County. Elevated to high levels of chlorophyll are also visible onshore and offshore northern Monroe County ( $>7 \mu\text{g/L}$ ); however, elevated chlorophyll features in this region are common and are not necessarily indicative of a harmful algal bloom. Recent samples taken offshore and onshore Pinellas County, and onshore Manatee, Sarasota, Charlotte and Collier counties (FWRI 4/17, 4/20-21) all indicate that *Karenia brevis* is not present. The samples also indicate the presence numerous other species of algae at various concentrations which may account for the elevated levels of chlorophyll visible throughout southwest Florida. There are no new samples from alongshore Lee County, nor are there any reports of respiratory irritation from anywhere alongshore southwest Florida.

**Florida Keys:** Reporting of the blooms last identified offshore and onshore the ocean side of the lower Florida Keys on 3/30 and offshore the gulf side of the lower Florida Keys on 3/31 will cease until additional information becomes available. No new samples have been received from offshore or onshore the lower Florida Keys. Satellite imagery is partially obscured by clouds in the lower Florida Keys; however an elevated chlorophyll ( $4-7 \mu\text{g/L}$ ) patch is visible and extends from onshore Stock Island westward almost to the Marquesas Keys. No new information is available elsewhere onshore the lower Florida Keys due to cloud cover. Offshore the northern portion of the lower Florida Keys, however, another elevated chlorophyll patch ( $2-5 \mu\text{g/L}$ ) is visible and extends the full length of the lower Florida Keys. Lastly, an elevated to high patch of chlorophyll ( $>7 \mu\text{g/L}$ ) is visible and extends from the lower Florida Keys northeastward to Florida Bay; however, elevated chlorophyll features in this region are common and are not necessarily indicative of a harmful algal bloom.

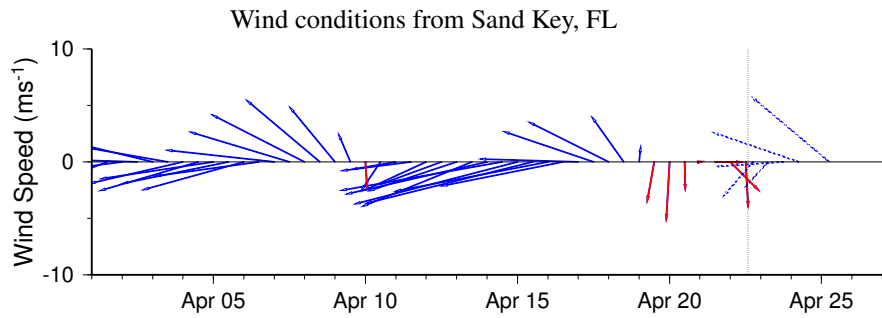
From Friday through Sunday, forecasted winds may lead to westward movement of chlorophyll patches located on the gulf side of the lower Florida Keys.

Due to technical difficulties SeaWiFS imagery is currently unavailable for display. MODIS imagery is shown on this bulletin.

Urizar, Derner, Burrows



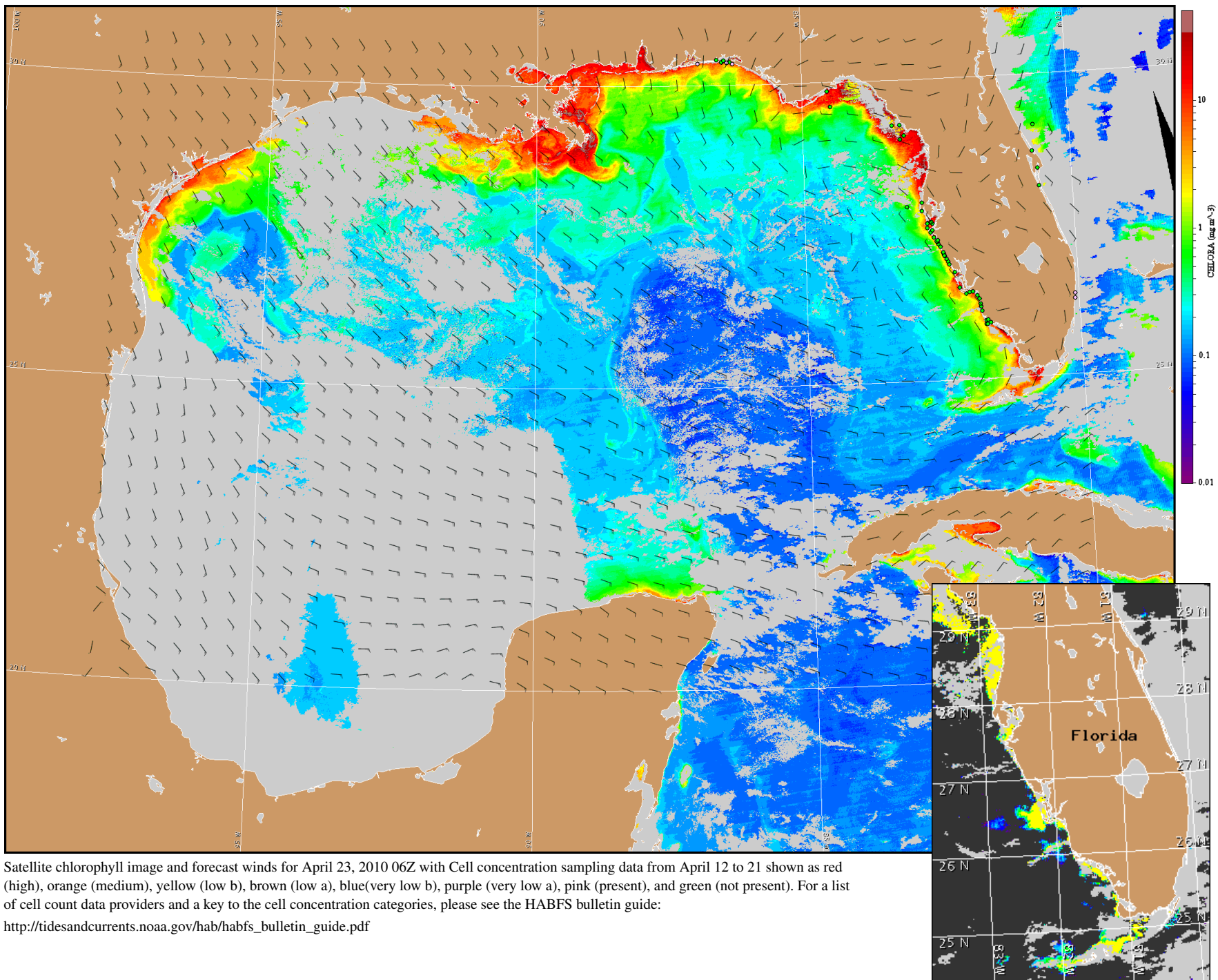
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).



## Wind Analysis

Southwest Florida: Northwestern winds (10 kn, 5 m/s) today. Southwesterly winds (10 kn) Friday and southeasterly winds (10 kn) Friday night. Southerly winds Saturday (15 kn, 8 m/s) and Sunday (20 kn, 10 m/s). Southwesterly winds (15 kn) Sunday night.

Lower Florida Keys: Northerly winds (10 kn) today and variable winds (5-10 kn, 3-5 m/s) tonight. Easterly to southeasterly winds (10-15 kn) Friday and Saturday. Southeasterly to southerly winds (15 kn) Sunday.



Satellite chlorophyll image and forecast winds for April 23, 2010 06Z with Cell concentration sampling data from April 12 to 21 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 HABFS 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).